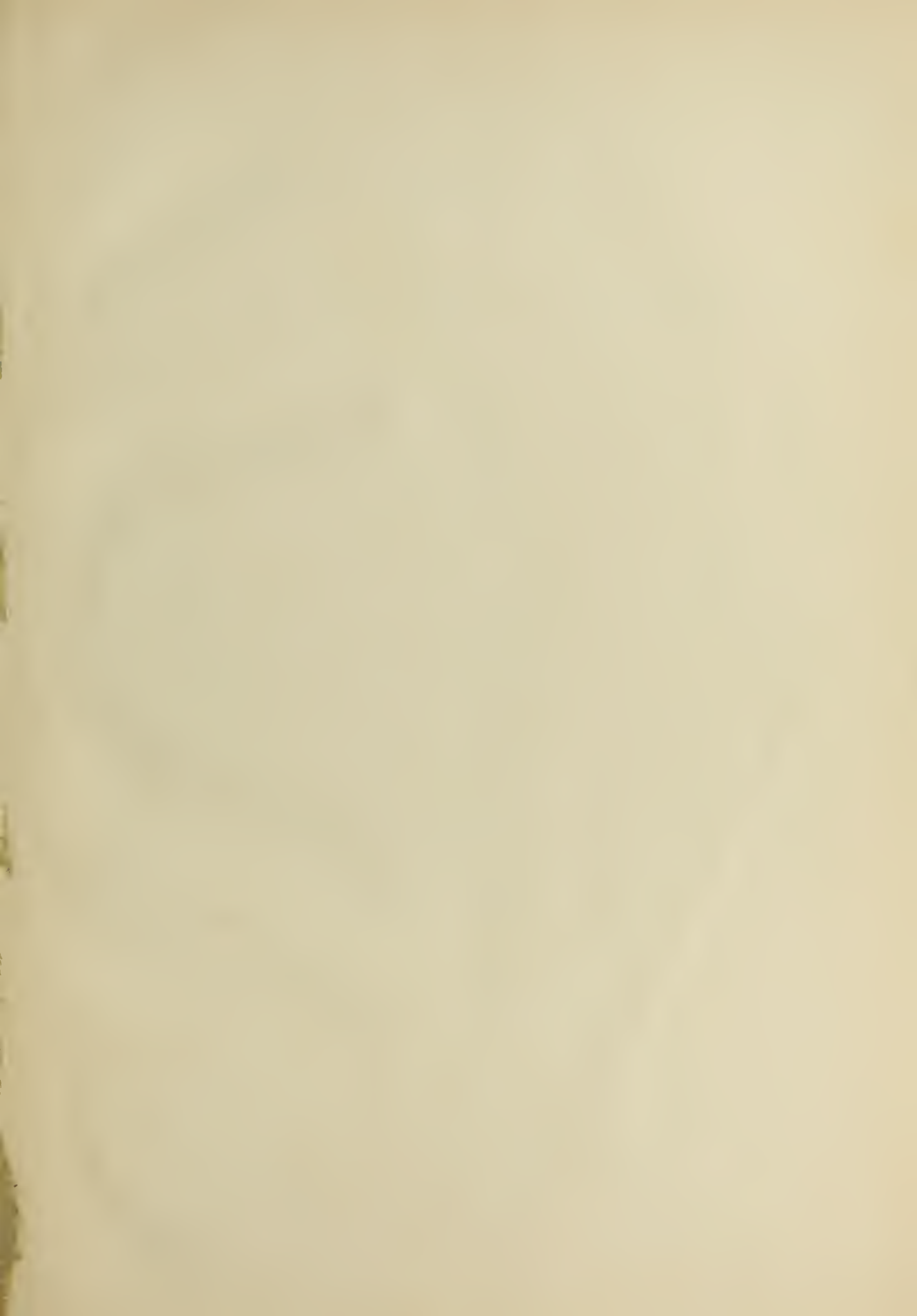


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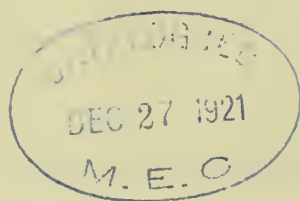
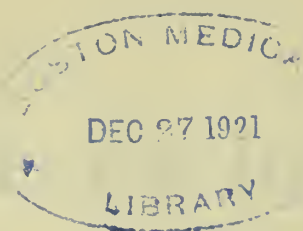
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No. 1

Psychotherapy

J. H. COOPER, M. D., TOPEKA

Read at the Annual Meeting of the Kansas Medical Society at Hutchinson, May 5, 1920

In presenting to you a paper on the subject of psychotherapy I have in mind a definite purpose. I wish to make an appeal for the use of mental and moral measures in the treatment of functional nervous troubles instead of medical and physical remedies.

In making such an appeal I suspect I may encounter some opposition, possibly prejudice. I am well aware that the medical profession has cause and reason to regard the subject of psychotherapy with some measure of suspicion and even hostility. For under this title are herded much superstition, ignorance and quackery. The term psychotherapy makes us recall at once Eddyism, faith cures, Emmanuelism, and perhaps other isms and cults. Again the term is associated with certain kinds of deception such as the giving of placebos or the making of emphatic and grossly exaggerated statements.

If these things are the sum and substance of psychotherapy an attitude of suspicion and hostility on the part of the medical profession is quite proper. However, psychotherapy as a practical modern method has nothing to do with fads, cults, or isms nor with deception and gross exaggerations. Instead we find methods of treating diseases of mental and moral origin, by psychological measures rationally applied.

When we consider the appalling frequency of the psychoneuroses such as the obsessional neuroses and hysteria, to say nothing of neurasthenia and anxiety neuroses; when

we recall the suffering and disability these functional nervous diseases produce, the need of an effective remedy is very forcibly borne in to us.

We are all too familiar with the common failure of medicines, surgery, and change of climate; indeed as far as these remedies are concerned, the treatment of the psychoneuroses is as unsatisfactory as it was in 1866, when Sir James Paget wrote "what unsatisfactory cases these are." "This charming and widely known lady will some day disgrace us all by being juggled out of her malady by some bold quack, who by mere force of assertion will give her the will to bear or forget or suppress all the turbulencies of her nervous system."

Hugh T. Patrick has recently written "Some of us have neuroses or psychoses because we are unable to successfully harmonize with our environment, and for no other reason. Often this fact is overlooked. What has social inadequacy to do with the practice of medicine? A great deal, because it starts a multiplicity of symptoms which the patient expects the physician to relieve. To speak of the hyperacidity and gastric distress of financial insufficiency, the dysmenorrhea of domestic disharmony, and the tachycardia of industrial futility, may sound incongruous, but sometimes that is what they are." Or again "Neuroses are a way out of trouble or around an obstacle, a way selected more or less unconsciously." How futile, how ignorant appears the administration of medicines or the resort to surgery to relieve such situations.

The late William Osler in his recent text book on medicine says "To treat hysteria as a physical disorder is radically wrong, it is

essentially a mental and emotional malady and the important element in its treatment is moral control."

And finally let me quote from Dejerine and Gaukler "There has been a marvelous evolution in therapeutics during the last few years, from being symptomatic as it used to be there is a greater and greater tendency for it to become pathogenic. Medicine no longer attacks the symptom which considered in itself has only a slight indicative value. It concerns itself only with the actual causes of the disturbances which it has to treat. Specific treatments, like that for syphilis or malaria, by mercury or quinine; specific treatments such as serotherapy and specific treatments such as psychotherapy which in the presence of affections of psychic origin essays to cure them by psychic action. In short, as medicine progresses one sees more and more that very little of the old therapeutic arsenal remains, except those remedies which were specific without the fact having been known. This is still the case for mercury and quinine.

That is to say, that in our conception of the psychoneuroses we see no place for drug therapy. That it may from time to time find some indication in an added phenomenon not depending on psychical causes is possible; that sometimes one may help a patient or at least be able to palliate his symptoms by means of medication, may also happen; but the time has passed when one could pretend to do a good piece of medical work by saturating an hysteric or neurasthenic with bromide or phosphorus. This therapy has lived its day, and we feel that it is time to condemn it without any circumlocution or restriction."

To merely criticise and condemn the attempt to cure nervous diseases of mental and moral origin by physical means without offering a more rational and a more effective substitute would not be worth while. However, I maintain that in psychotherapy, scientific medicine has a more rational and effective means of treating these psychogenic disorders. Psychological methods of treatment have been discovered by scientific investigations, thus removing modern psycho-

therapy from the domain of superstition and quackery.

It will be impossible to describe all the varieties of psychotherapeutic modes of treatment in this short paper. We shall only consider the principles underlying the three main groups, namely: suggestion, reassociation, and psychoanalysis.

Suggestion is the basic force that is utilized in several forms of psychotherapy. Of the several forms or varieties of suggestive treatment, we mention hypnotism, suggestion in the waking state, suggestion in the sleeping state, and the persuasion method of Babinski. These varieties of psychotherapeutic measures, based largely on suggestion are utilized for the most part by physicians who regard the functional nervous troubles as due to such things as a craving for sympathy, love of simulation, deficient will-power or perhaps a naive, simple infantile mentality. Usually without an attempt to discover other mental causes, they attempt to oppose the manifestation of symptoms by the counter force of suggestion, often with brilliant, but usually very temporary results. There are several serious disadvantages in the methods of psychotherapy which depend upon suggestion. In the first place, it is an attack upon the individuality and independence of the patient. It serves to increase the patient's automatism at the expense of his self control. It tends to encourage weakness and dependency; it attempts to suppress the symptom without any understanding of the cause or effort to remove it, however it recognizes the psychic origin of the functional nervous diseases and meets it on its own ground, that is it utilizes mental and moral measures as therapeutic means. In this respect it is a distinct advance over the older therapy, but on account of the disadvantages and objections already enumerated, it should be employed only in very mild cases or where a very rapid removal of symptoms is necessary. Thus hypnotism may be legitimately used in such conditions as hysterical anorexia or vomiting where life may be actually endangered.

We may now consider the second main

group of psychotherapeutic measures, namely: reassociation. Among the psychotherapeutic measures included in this group, we may mention: the methods of Morton, Prince and Janet, termed reeducation, hypnoidization of Sidis, mental analysis and persuasion of Dejerine and psychosynthesis of Bezzola.

All neurologists who use some variety of the reassociation method have made a careful study of the cause and evolution of psychoneurotic symptoms. In their psychological investigations of hysteria in particular they have made a discovery of vast importance, namely: that the symptoms cover and hide a number of ideas and emotions of which the patient is totally unaware; which are indeed forgotten yet are the cause of the symptom. The presence in the patient's mind of ideas and emotions of which he is not aware they term disassociation, and they have discovered that such disassociation may be caused by shock, fright and grief.

By the use of automatic writing and hypnotism they have discovered that they can learn the exact nature of some of these unconscious or subconscious ideas and emotions and they believe that their harmful effects can be counteracted by suggestion, substitution and appeal to the patient's reasoning power. This deeper insight into the mental causes of psychoneurotic symptoms results in a different attitude on the part of the neurologist toward the patient. He no longer regards craving for sympathy or deficiency of will as the fundamental cause of functional nervous troubles. On the contrary he knows that these are really symptoms caused by ideas of which the patient is unconscious and consequently he has no thought that the patient is to be blamed for his illness and that he can be cured by ridicule and censure.

There are two defects commonly present in the method of reassociation. The first is, that in its practical application it fails to discover and resurrect all the subconscious ideas and emotions. The second objection is that since the patient is in a hypnotic condition when these ideas are discovered, he cannot fully reassociate them. This is

due to the fact that hypnosis itself is a disassociated state and consequently the patient may have no memory of these ideas upon awaking.

Nevertheless, in that it discovers and deals with many of the underlying causes of the psychoneurosis the reassociation method is a distinct advance over the method of suggestion, and the therapeutic results obtained are often gratifying indeed.

The third and last psychotherapeutic method to be considered is psychoanalysis. By this term three different tho related things have been included in medical literature. First, a psychological method of investigation and treatment. Second, data and facts discovered by use of this method. Third, hypotheses and theories that have been deduced from the data acquired by the method of psychoanalysis. In criticizing and appraising the value of psychoanalysis it is important to keep this fact in mind, since an objection in reference to hypothesis and the theories might be valid yet might be inapplicable to the facts discovered or the method utilized in discovering the facts.

In this paper we shall have time to consider only the method and a view of the facts discovered. As the name implies, psychoanalysis is the method of analyzing the mind. The development of the science and art is largely due to Freud who is generally regarded as the discoverer. At the outset the method starts with the assumption of psychic determinism, that is: the method is based on the belief that for each psychic or mental fact there is a psychic or mental cause and that mental or psychic phenomena are invariable governed by immutable psychic laws, just as physical phenomena are invariably governed by physical laws.

With this as a basis, Freud began to investigate the minds of patients suffering from Psychoneurosis and in so doing discovered the value of what is known as the free association method for exploring both the conscious and the unconscious mind.

No wite free association method is very simple in its principles but very difficult to apply in a practical manner.

The free association method may be briefly described as follows: The patient is instructed to think of or hold in mind a symptom the origin and history of which is sought. At the same time he is cautioned against any attempt whatever to direct or control his thought processes. When this is done it is invariably found that ideas occur to the patient which are directly or indirectly connected with the symptom altho the connection of some of these may not be at the time apparent. The results obtained confirm the findings of the neurologists who have utilized hypnotism or automatic writing as a means of investigating psychoneurotic symptoms. That is, it shows that the symptom always covers ideas, underlying thoughts and emotions.

Generally, during the process of analysis by this free association method it is early discovered that there is a tendency on the part of the patient not to tell certain associated or incoming thoughts and to minimize their importance or perhaps to deny that they are connected. Furthermore, it has been found that these associated ideas that the patient feels like hiding, or denying their connection with the symptom have a tendency to be forgotten much quicker than the other associated ideas. These and other phenomena force the conclusion that there is in the patient's mind some constantly acting force which interferes with certain associated ideas becoming conscious. This force has been termed repression, and further investigation shows that it is the original force which caused a disassociation or splitting of consciousness, thereby initiating and producing the psychoneurosis.

Freud says "The theory of repression is the main pillar upon which rests the edifice of psychoanalysis. It is really the most essential part of it and is itself nothing other than the theoretical expression of an experience which can be repeated at pleasure whenever one analyzes a neurotic patient without the aid of hypnosis."

When the force of repression has been overcome and a complete analysis by free association has been made it is discovered

that more than one, indeed often several causes are cooperating to produce the symptom. It is also found that the symptom is the resultant of two opposing forces, one a personal selfish instinct, the other a moral, or ethical feeling.

The recognition of the force of repression and the use of the free association method to overcome it has made possible a much deeper penetration into the mind of the patient and giving a more complete knowledge of the disassociated ideas and emotions than is possible with any other method.

The free association method is used when the patient is not in a hypnotic, hypnoid or other disassociated state, but is in full possession of consciousness. He is thus able to fully assimilate into consciousness the ideas unearthed by the analysis, many of which were previously unknown.

The importance of this is realized when it is remembered that a cure results when all such forgotten unconscious mental processes are resuscitated and fused with conscious ones. In other words the free association method is at once a means of diagnosis and a therapy.

Now while the method of psychoanalysis is indeed thoro there are some important disadvantages. In the first place the technique is quite difficult and when used in a bungling manner actual harm may result. Furthermore the method makes very large demands in the matter of time upon both the patient and physician. The duration of treatment in an unusually severe case may be as much as three years altho the average patient requires much less time, perhaps five or six months.

The last objection we may mention is that the method is not applicable to all patients. It cannot be used with people of advanced age nor with patients who are mentally defective or feeble minded. These disadvantages however, are offset by the results that are commonly obtained. The method is indeed far reaching in its results. The whole mind of the patient is dissected as it were and all its hidden motives revealed. The very roots of the neurosis are discovered consequently the cure is radical

and of great prophylactic value as to future attacks. Lastly it often succeeds where other psychotherapeutic methods have failed.

In conclusion we may say that the treatment of the psychoneuroses by medicines and physical means has failed to advance and is generally unsatisfactory. This results in unrelieved suffering on the part of afflicted patients, the medical profession thereby losing prestige. As psychotherapeutic methods have been perfected which when properly applied are satisfactory in results—in fact curative, the acquisition of a working knowledge of psychotherapy on the part of the medical profession is indicated. Where this is impracticable, at least the value of psychotherapy should be recognized and the practitioner should advise the patient of its value and tell him where he can receive such special treatment.

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Episiotomy as a Means of Preventing Severe Lacerations of the Perineum

LESLIE LEVERICK, M. D., KANSAS CITY

Read at the Annual Meeting of the Kansas Medical Society at Hutchinson, May 5, 1920

In bringing to your attention the subject of episiotomy, or incision of the perineum as a means of preventing severe lacerations of the perineum, it is not my intention to disregard all other means now in use to protect the perineum. As you well know, I am not presenting a new subject, but on the contrary, one that has received at least some consideration for the past one or two centuries. Although many of our most able obstetricians, including those of our larger maternity institutions of today, recommend and perform episiotomy, I feel that there has been and is today a certain lack of recognition of the importance of preventing the perineal tear, and also a lack of knowledge of the procedure among many of our physicians, and I am presenting this subject with my personal experience of the operation, hoping that there may be a more general use of a procedure that will largely eliminate the extensive tears of the perineum.

I wish to consider:

1. The status of the operation at the present time, and its importance.

2. When and under what conditions, I think the operation advisable.

3. The preferable operation, its repair and after treatment.

Some object to the operation, feeling that it would not be safe in many of the homes where the people are uncleanly, or where one did not have a nurse to properly care for a wound of this nature. This, I feel, is a poor excuse, as a tear under these circumstances would heal just as poorly, and the patient be left in a much worse condition than she would if an incision were made. Obstetrics should receive the same care and attention that any other surgical procedure would demand, and if the surroundings are not suitable for an episiotomy, they are equally poor for the delivery of the child. Some hesitate to make an incision, preferring to run the risk of having a posterior laceration, feeling (if they do have a tear that never heals) that same was unavoidable. This, I feel, is wrong, for we can avoid same by doing an episiotomy. Dr. DeLee of Chicago says, "In my experience, an absolutely intact perineum is a great rarity, but extensive lacerations are uncommon, because I use episiotomy often." The operation substitutes for a posterior laceration, which is difficult of repair, incision through less important structures which can be easily and perfectly closed by suture. If we, by making use of this procedure, can avoid a condition that too often exists, the operation is one worthy of our consideration.

Just when the operation is advisable is difficult to determine in all cases, but, where there is any doubt, one should do an episiotomy rather than run the risk of having a tear that is difficult of repair, and may never heal, even under subsequent repair. I think the operation is advisable where we have a resistant perineum, or, in other words, where relaxation is slow, abnormal size of the child or abnormal mechanism, when rapid delivery becomes necessary to save the life of the child or mother, breech presentations in all primipara and in some multipara, all instrumental deliveries, occipito-posterior positions whether delivered as

such or where version is done, pathologic conditions of the vulva, and often where we have a narrow pubic arch.

The operation is performed in three different ways: the bilateral as recommended by Scanzoni, the median or Kustner method, and the mediolateral as recommended by Tarnier. In doing the bilateral, an incision is made on each side of the vulva paralld with the long axis of the mother. The median, in the median line toward the anus, and the mediolateral, on a line midway between the anus and the tuberosity of the ishium. From my own experience, and from observations obtained at the Lying In Hospitals of both New York and Chicago, I prefer the mediolateral for the following reasons. The bilateral is objectionable because there are two incisions to repair, and if one fails to get healing, secondary repair is very difficult. The median may tear into the deeper structures, and its chances for healing are no better than they would be if left to occur spontaneously. In the mediolateral we have an incision that simply cuts the skin, urogenital septum, constrictor cunni, transverse perinei, and a few of the anterior fibers of the puborectal portion of the levator ani. It can be made on either side, and I usually choose the one corresponding to the occiput. Some accoucheurs prefer waiting until the levator ani is well stretched before making their incision, but where there is much resistance an early operation is best as it often times prevents a large amount of traumatism as well as an extensive laceration. A few inhalations of ether should be given, and the incision made deep enough to relieve all resistance. Usually there is but little hemorrhage, and this seldom needs anything more than a slight compress, as the presenting part soon gives sufficient pressure to control any bleeding that might occur.

I repair these incisions in two ways, depending on the surroundings and whether I have a competent nurse or not. If in a well regulated maternity hospital, or in a home if I have a dependable nurse, the deeper tissues or the puborectal portion of the

levator ani are first brought together using a few interrupted sutures of twenty-day catgut. The vaginal mucous membrane and also the skin, are then closed by subcutaneous sutures of the same material. If the surroundings are poor and there is no nurse in attendance, or in a hospital where these cases are not well isolated, it is better to use nothing but interrupted sutures throughout, using twenty-day catgut for the deeper stitches, and either celluloid, in yarn or fiber suture, for both the vaginal mucous membrane and the skin. The after care is very important, and I find that if I give definite instructions to both mother and nurse, and explain what we are going to do, and want done, and how important it is, my results are much better than they would be otherwise. These patients are fed on strained vegetables, soup, custards, oyster stew, Jello, strained gruels, milk, egg nog, grape juice, orange juice, and toasted crackers. The nurse should be cautioned not to touch the stitches, and the parts should be kept as clean as possible by pouring over same a one-half of one per-cent solution of Lysol several times daily. The stitches should be inspected often, and if any cutting through, they should be touched with iodine. If the cutting should be deep, or infection develop, remove stitches at once. Stitches other than the catgut should be removed on the tenth or twelfth day. No enemas or cathartics are given until the fourth day at which time I begin giving one tablespoonful of mineral oil three times daily, and, if no bowel movement the seventh day, I give a dose of castor oil, and follow this in six hours by a plain enema. The line of incision is powdered well with any good dusting powder and covered with the vulvar pad, and the patient cautioned to avoid straining.

In view of the fact that there is today an increasing number of extensive lacerations of the perineum, that, no doubt, are causing many of the ills with which our women complain; we, as obstetricians, should feel our responsibility more, and ever keen in mind that these disagreeable conditions can be largely eliminated by episiotomy.

Syphilis in the Innocent

HOMER G. COLLINS, M. D., TOPEKA

Read before Northeast Kansas Society at Kansas City,
November, 1920

In considering the selection of a subject to be presented to you, many dermatological questions came to my mind, which would be of interest to those who have given special time to the study of skin diseases, but I well remember the monotonous hours I have spent in lecture halls when the instructor imparted his wisdom to the select few who were able to remain awake. Not wishing to become a 'bore,' I have selected a malady, the literature of which probably exceeds that relative to any other single disease and is one of the most important diseases affecting the human race. Its study has occupied the thought of the profession for many centuries. The advances which have been made concerning its different manifestations, results and treatment during the past ten to twenty years have robbed it largely of its terror and, undoubtedly, limited its extension by innocent means.

Although prostitution in the form of police protected districts has gradually been abolished in our leading cities, it still exists in as dangerous manner cloaked as 'street walkers' and the like. It is a matter of common knowledge that the spread of syphilis by these women in both an innocent and venereal sense is greater than any other single factor.

Seaport cities, such as New York, Philadelphia, Norfolk and San Francisco, due largely to the high percentage of syphilis among seamen, are ripe nuclei for the spread of the disease. Particularly, this class of men have little dread of the disease, and oft-times when the florid secondary period is present, feeling badly, return to their homes carrying infection with them, even to distant parts, and through innocent manners communicate the disease to their families and others, and thereby a foothold in rural districts is often secured.

During the late war, semi-monthly venereal inspections were held. Prophylactic treatments were insisted upon when exposure was admitted. General Orders were in force

carrying a severe penalty for those who failed to take advantage of the prophylaxis offered, if a disease were contracted through the neglect. Frequent lectures were given by the medical officers to the men. These factors went a long way toward keeping venereal diseases in general to a minimum. Almost all cases of recognized syphilis received some treatment. In most cases enough treatment to render the syphilitic non-infectious for the time being, although in the vast majority of cases a clinical cure for the time being was the only ultimate aim. Vast numbers of men who had been so treated were turned loose upon their discharge to carry the infection to the most remote places of the country where syphilis had been an unknown factor. To my knowledge most of the cases scattered over our land were not given sound advice upon their discharge with regard to continuation of treatment or future blood examinations. Many of these cases will develop 'delayed secondaries' with the highly contagious mucous patches of the mouth, etc. Many cases of innocently acquired syphilis will undoubtedly result. I have had the opportunity of seeing two such cases, both being chancres of the lip.

I might here make a suggestion as a preventative against the future spread of syphilis especially by ex service men. I am not going to take issue whether or not an ex service man is due any further treatment upon his discharge from the service. To insure the health of the nation is Government business, and I would suggest a plan somewhat like this: syphilitic registers, which served as a clinical history, were filled in on every soldier suffering from syphilis. These registers are filed with each man's Service Record and now can be found on file at Washington. Within easy access to all communities can be found either U. S. P. H. S. or W. R. I. doctors. Although entailing a little work, personal letters could be written to formerly treated syphilitic soldiers with a simple request that they report to the nearest of these doctors where a blood test could be made and treatment instituted free when found necessary.

When syphilis is increased by venereal

excess, a not inconsiderable number of cases are acquired innocently, the ratio varying considerably in different communities and under different circumstances. Numerous epidemics have been reported in former times, when the nature of the disease and the now well known contagiousness was not understood.

In actual practice venereal and non-venereal syphilis are very closely related for the person who may have acquired the disease from sexual transgression not infrequently transmits it innocently; and, conversely, one who receives it innocently may transmit it through sexual intercourse. It makes little difference how the disease is acquired, for its course, symptoms and treatment are the same.

Toward the close of the fifteenth century, when syphilis was making rapid strides in its spread, it was known as a venereal disease, however, the actual connection with the primary sore and secondary or constitutional symptoms were not recognized until years later. Reference was made later that this new disease was commonly acquired through venereal transgression. It was probably, because of the fact it was looked upon as a venereal disease exclusively, that so little was done in research work until the past decade. Even as important a disease as we now recognize it to be, little mention, or at least insufficient space has been allotted to it in the past in books dealing with general medicine and surgery. The individual suffering with syphilis almost invariably is looked upon with suspicion, for so few know of the various modes and occasions of the entrance of the spirochete, in connection with which the recipient is entirely innocent. Perhaps, if the fact were emphasized that the disease is not in all cases venereal in origin, earlier recognition of the innocently acquired initial lesion would result, which would mean considerable from the curative standpoint, for we know that syphilis is curable in the majority of cases before constitutional symptoms become manifeste.

We may divide innocently acquired syphilis into three main groups, these are: Inherited syphilis, marital syphilis, and

extra-genital syphilis. Of the first two groups much has been written and we are quite familiar with these unfortunate cases, however, in a limited space I will only dare to scratch the surface of the knowledge concerning extra-genital syphilis.

The innumerable ways that syphilis may be acquired innocently is appalling. Think for a moment of all articles that come into contact with the highly infectious syphilitic in the secondary stage. Reason for yourself, the enormous possibilities open for this infective material to take root on fertile soil, especially in light of recent knowledge, which shows us that under favorable circumstances the spirochete may live for hours on other than body tissues. It is really remarkable we do not see more sad cases than actually occur. The reason for this is, before the spirochete is capable of producing its devastating results, it must have a solution of continuity of skin or mucous membrane in order to gain admission to the body. During coitus, friction, hair cuts, herpes and immediate contact serve to inoculate the spirachete into tissues, which through the act are prepared to receive them. Delicate mucous membrane is fortunately limited to few anatomical localities, and a solution of continuity of the skin proper is more uncommon and the immediate contact less common.

It is safe to make the assertion the greater proportion of non-venereal syphilis comes from the highly infectious mucous patches, especially those located on the lips and tongue. These mucous patches characterize the secondary stage of syphilis, while the gumma which is one of the characteristic skin manifestations of tertiary lues is almost negligible in its inoculability. Many attempts have been made to find the spirochete in gumma, fortunately, the failures are far more numerous than successful attempts, even with modern staining methods. On the other hand when the spirochete cannot be found in mucous patches at some time or other in 100% of cases, an error in technique is generally responsible provided no spirocheticide has been used.

Probably, Dr. L. Duncan Bulkley, of New

York City, lately retired, has given more time to the study of innocently acquired syphilis than any other American. I have had the pleasure of being associated with him in his work during eight months of the past year. He is credited with the statement that fully 10% of all chancres are extra-genital in situation. This as you can readily understand, does not mean only 10% of syphilitic cases are of innocent origin, for it does not take into consideration hereditary or marital syphilis, which is no inconsiderable number. Due allowance should be made for cases who have denied any initial lesion. Particularly is this true with females where the primary sore often goes unnoticed because it is often covered by the labia and is deep seated, however, females would more often consult a physician in case of an extra-genital sore than would the males.

Allow me to quote a paragraph from Dr. Bulkley's book on 'Syphilis in the Innocent'. "Taking 500 recent cases of syphilis in private practice, there are found to be 339 males to 161 females, the latter forming about 32%. Of these latter there were 120 who were married or widows, and 41 single or children; among them were 20 cases of inherited syphilis. Of the 120 married or widowed women 40 had obtained their disease through extra-genital chancres, and two had late hereditary syphilis, leaving 108 to be accounted for by other means of infection. After a very careful examination of the histories of the patients, and the exclusion of all doubtful cases, I am positive that in over 50% of these married women the disease was contracted innocently from their own husbands; in a dozen or more instances the husband was either under my treatment or observation for syphilis, and recognized the source of infection. Added together then, the 10 cases of extra-genital chancre, 20 of hereditary syphilis, and 54 infected wives, we have 84 cases, or over 50% of all females in private practice, in which syphilis was innocently acquired."

Numerous pleas have been made for the use of the dark field illumination test on all genital sores, the plea could be extended to

cover all sores of extra-genital origin in which a diagnosis is doubtful, and especially those located around the mouth. The india ink method of examination is very simple, although not so accurate can be handled nicely by those in general practice, for it is a simple procedure and perhaps may lead to many early diagnoses with resultant cures. These two tests are of course available and may clear up a diagnosis before the complement fixation test becomes positive.

I have mentioned before the most common site for extra-genital chancre, which is, in or about the mouth. Statistics covering several thousand cases of extra-genital chancres show the following location in their order of frequency; lips, breast and nipple, buccal cavity, fingers and hands, eyelids and conjunctiva, tonsils, throat, tongue, chin, cheek, trunk, nose and anus. No location seems exempt, however, the different localities will give rise to slightly different symptoms as is to be expected. The nearest lymph nodes in all locations would be enlarged, sometimes these nodes are distant from the lesion. Induration, pain, and size would be materially affected in the different localities depending upon the surrounding tissue.

Epidemics of innocently acquired syphilis have been reported many times. Fortunately, many of the common causes of these epidemics have grown into disfavor. Among these causes might be mentioned; application of tongue to eye, cupping, tattooing, and vaccination with human vaccine. Dr. Arthur Wilcox in 1866 reports 26 men infected from a man with mucous patches in his mouth who wet the needles with his saliva while tattooing. Dr. Barker in 1888 reports 12 soldiers infected in a like manner. In 1866, Drs. Pereival, Jones and Foster reported over 160 people of all ages infected, who had been vaccinated from a man with early syphilis, or from one another in revaccination. They were all examined about the same time and each presented a vaccine chancre in situ, with secondary symptoms. I will not take more time to innumerate many more interesting instances of epidemic syphilis of the innocent type. Suffice to say, the literature

is full of cases, however, the epidemics seem to be greatly on the decline and it is to be hoped, they will be totally eradicated.

The laity in general do not realize the prevalence of syphilis, and it is hardly to be expected they should, for it is only since the introduction of the complement-fixation test, the profession actually 'checked up' its findings against clinical symptoms. I dare say, if the general public actually realized in this city and elsewhere in cities of like size, that thousands are constantly exposed to this disease, undue alarm would result. I am told the State of Kansas was the first to abolish the public drinking cup. I need not emphasize the importance of such laws to prevent the spread of disease. Thinking men in the profession probably approached our law-makers and had this and other hygienic laws passed. Credit should be given to both, for it puts the State in the most enviable position in the eyes of other states.

The question was recently asked me, what I considered the most important single factor in the spread of syphilis innocently. The answer is easy, for kissing undoubtedly takes first place. Of great importance then, is what can be done to reduce this factor. Promiscuous kissing should be discouraged. Children should be taught that disease is often spread in this way, and that kissing should be strictly limited to members of the immediate family, thereby reducing the possibilities to a minimum. Perhaps the foreign custom of cheek kissing should be adopted in this country, for from the hygienic standpoint it is far safer than lip contact, especially since it is so common to have a solution of continuity of the tissues in and about the lips. Kissing games should be abolished. Recently, two sisters with chancres of the lips went to the N. Y. Skin and Cancer Hospital for diagnosis. They admitted attending a party where kissing games took 'first place' on the programme, and both remembered kissing a man who had perceptible sores on his lips. Perhaps others were infected at the same party. Numerous instances of like nature could be cited, and it is regrettable so little attention is given this factor.

In conclusion it may be permissible for me to make known my ideas concerning the limitation of the spread of syphilis. Since venereal and non-venereal syphilis are one and the same disease, even though acquired differently, I will consider the disease in general. All modern, class 'A' medical schools require the attendance of each graduate to a minimum of ten confinement cases. Syphilis is so important a disease, I would suggest before a man be allowed to graduate he see at least five primary and ten secondary syphilitic cases. This experience should enable the recent graduate to identify a mucous patch and the commoner of secondary eruptions, for a diagnosis of syphilis in its most infective stage is absolutely essential. Unless the diagnosis is clear in primary syphilis, the chancre stage, no local application should be used. If possible the dark-field illumination or india-ink examination method should be employed before the complement-fixation test becomes positive, this, for two reasons: to make earlier diagnosis and better prognosis if treatment is immediately instituted, and to reduce the infective stage to a minimum. We must move with the advances in medicine and it is no longer permissible to await secondary manifestations in order to make a positive diagnosis. Arsphenamin and Neo-arsphenamin being wonderfully efficacious in destroying the spirochete in the shortest possible time should be used in the beginning treatment of almost all cases of infectious syphilis. Some syphilographers advise a short preliminary course of mercury in florid secondary cases, however, I have not found it to be of value, and would advise small doses of arsphenamin repeated at short intervals. We know syphilis gradually loses its infectiveness, if this were not so, I firmly believe at least 50% of the population would at some time in life contract it. We also know the primary and secondary stages are the infective stages. Experience has taught us after two to three years duration the infectiveness of syphilis has become minimized to a point that for general consideration would be almost negligible. State laws are in effect demanding the physician to

report cases in private practise who fail to report for observation and necessary treatment during the infective state. City physicians and U. S. P. H. S. doctors could look after those cases financially unable to meet the charges of the private physician. I think the time is near at hand when we will have State laws demanding a blood examination of parties applying for marriage license. In Kansas, we have a State law demanding the report of every venereal case. If the physician vouches for the proper continuation of treatment, the patients name need not be mentioned. If a patient in private practise does not report for treatment, through neglect, it is the doctors duty to make a report to the Health Department who should use such measures that proper treatment would be insured, especially in the infectious stages. A report sent the Health Department at the end of the infective stage would serve to remind the physician of his duty to the public and to materially lessen the infectiveness of syphilis with a consequent decrease in its spread. Kansas, I will repeat, has taken the lead in the passage of good hygienic laws, and it now remains to have these laws properly enforced which would eventually result in unexcelled health statistics.

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Faith Cures and How They Act Contrasted With the Principles of Scientific Mental Healing, With Some Reports

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Medical men, particularly as regards mental medicine, are at a disadvantage in meeting the wiles of charlatanry; for they cannot make an appeal so sensational as that of the mystery mongers. The hold which surgery has taken on the public mind is partly perhaps because of the very sensationalism of its appeal and such recent medical agents as salvarsan and radium have gained much renown from the exaggerated emphasis given them by journalism.

At the time when psychotherapy was equivalent to hypnotism, similar exaggerated claims were made regarding it. Still more

recently the meretriciously presented observations and reflections about multiple personality had much vogue; and even now the schematised phantasies of some psychoanalysts have been exploited sensationally before the public.

But the appeal of all these is to the love of the mysterious, an aid denied to the psychotherapy now presented. This latter has no attraction for lovers of the marvelous, for it is merely an enlightened good sense without any mystery; indeed, in its apparent simplicity, it illustrates the attitude of the questioner who, upon being told by the painter of a picture he admired "One simply mixes the paints and puts them on with a brush," declared contemptuously, "Oh, is that all?" The illustration is an accurate one, for to play on the mind, which may seem so easy to the crude or unobservant because of the concealment of its art, requires much greater skill than the admittedly difficult art of playing the flute, as Shakespeare so penetratingly made Hamlet remark.

That medical men are so obtuse regarding the need for technique in treating patients with psychological disorders, permits them to attempt the treatment of these difficult cases, a thing they would never try without special training where for example, the eye, major surgery or orthopaedics was concerned. The result is that the many patients not benefited cast discredit upon medicine, and become a derelict herd upon which fatten the exponents of systems of incorrect thought, weird manipulations and semi-religious fanaticisms. It is high time that it be recognized that the graver "neuroses" are just as much in need of special skill as are obscure medical cases or those requiring major surgery. In the same way, just as it is recognized that a man without special skill not only obstructs but is a dangerous assistant in the operating room or laboratory, so it must be recognized that the endeavors of the family physician, however well-meaning or intelligent, unless he is specially trained, may seriously incommode the progress of his patient; for he can hardly help

interfering with the special technique of the psychotherapist.

THE POLLY OF "SUGGESTION"

Unsound psychotherapy by medical men commonly shows itself either in attempts at suggestion, which are often merely an evasive jolly, or in the relegating of a patient to a sanitarium for nervous disorders. These practices are most reprehensible; for in very few of such sanitariums are there men with sufficient neurological training or insight concerning psychoneuroses; and to attempt any therapeutics without some etiological diagnosis is the haphazard with which we so often reproach charlatans.

What should we think of the physician who gave morphine for a pain in the abdomen regardless of the possibility of acute inflammation requiring surgery? Yet there is no difference in principle between such reprehensible procedure and the common negligence which attempts to remove by hypnotic or waking suggestion symptoms concerning the genesis of which the operator is completely in ignorance.

It is time that medical men realized that only a very thorough neurological training can in many instances furnish the means even for a diagnosis between organic and functional disease. And it is hardly known at all that functional nervous disease should never be diagnosed by exclusion, but by its genetic factors, or at least by a detection of its mechanism. (This is a term used in psychopathology to denote the train of ideas and emotions which through a series of associations have modified the psychic reactivity of the patient.) To do this requires very special training.

THE SANITARIUM FETISH

A case illustrating the folly of sending a patient to an institution, as well as gross failure to detect the mechanism of a profound melancholic reaction, was that of a well educated man in the thirties whom I saw in England last August in St. Luke's Hospital for the insane, where he was regarded as a dement. The patient had been certified as a hopeless lunatic, and had been

incarcerated for some years, so that he was slowly perishing of inanition. He had within four years consulted several distinguished neurologists; and although none had made a diagnosis, all had regarded the case as hopeless. Although the man persistently refused food and could not be kept clean and his dejection was so profound that it required immeasurable finesse to get "en rapport" with him, twenty minutes served to find out that his condition was purely psychogenetic. It was merely the result of intense depression caused through his failure to accomplish a most ambitious task in literary psychology, for which he was illfitted in training and intellect. An exaggerated slough of despond from discouragement would describe the mechanism in popular language. Thanks to the persistence of a faithful sister who had consulted me, proper measures were instituted in spite of the scepticism of others, and the New Year brought me word that the patient has shaken off his melancholia and is well.

Such reproach to medicine is I fear not rare; and I am sorry to say that few sanitariums afford much chance that the mechanism of a psychoneurosis would be detected and the patient placed on the sure road to recovery. Another pregnant illustration will be found toward the end of this article.

As to suggestion. The man on the street, and as regards morbid psychology few medical men are yet in a better position, if he ever thinks about it at all, probably believes that suggestion is either "claptrap and twaddle" or something marvelous and mystical, or like the old electric fluid of our fathers, almost like something you could put in a bottle and take before going to bed. Even physicians have been heard to speak of "giving a little suggestion." (Actually, suggestion is merely the process of getting an idea accepted by the mind of the subject by slipping it, as it were, past the guard of his attention or criticism.) This may be done in various ways. For instance, it may be done indirectly when the subject's attention is lulled, as by a political harangue or theo-

logical exordium. It is not a desirable method of therapy generally speaking.

Ecclesiastical suggestion. The faith-healing cults really act by suggesting the disappearance of inconveniences. Each of them of course may remove symptoms, but only in cases where there is a false idea at the root of the trouble, because each, if successful, removes the false idea.

The very distinct advantage, however, which one of these cults has over many other methods of suggestion, is that its teachings are positive, though they appear negative. It not only removes a false idea but it fills up the void again with a positive belief that all is well. This is obviously more efficacious than physicians' methods which not only concentrate attention upon the physical aspect of the disorder but merely aim at the removal without substitution of the false idea. Suggestive power of healing cults is of course, further tremendously strengthened by the religious aspect. The fault of these cults' procedures in their application to nervous disorders, even apart from the obvious danger of misapplication to physical disorders is that they substitute for the original distorted thinking or false idea, an equally false, unreasoning and treacherous optimism. For example, a prominent business man in one of the larger southern cities was attacked recently by the condition which precedes and leads to arterial sclerosis. He was ordered certain exercises and a dietary, but preferred to adopt Christian Science. He believed himself to be cured, being possessed by the idea that "God is All; God is Good; All is Good;" hence his natural business caution was replaced by an unreasoning and happy-go-lucky optimism. Result rash speculation, financial ruin and suicide in six months. Of course, there are many suicides of persons who have not embraced faith healing cults, and one might argue that this man might have committed suicide in any case. But I wish to point out that suicides can now be prevented by modern psychopathological methods and that the inefficacy of the procedure employed by this man is clearly shown by the consider-

ations of cases in this article. His blind faith was tantamount to hiding his head from calamity, so that when he could no longer hide from it, it over-whelmed him.

The rational procedure would have fitted his psyche to prevent or avoid the catastrophe which he had seen months before.

Contrast the following case as illustrating the imperative necessity of medical training in caring for nervous disturbances apparently entirely "mental."

An engineer of 38 (referred by Dr. Atkinson) a powerful, energetic man, formerly accustomed to work, began to be unable to concentrate upon the office work to which he had confined himself for over three months. Previous to this he had been much less active, and latterly he had been very much worried by an official inquiry into a contract for which he had been mainly responsible. For no cause known to him he feels a dread in the mornings, and an indecision in business matters is now realized to have been present several months. There was no syphilis nor any other organic disease.

He had been improved by three weeks in the woods, during which he was very somnolent, but relapsed at once upon return, and could hardly stand his morning suffering. There was no insomnia.

Physical examination. The reflexes were rather active, but there was no other objective change in the lower neurones; there was no amnesia; the sexual hygiene was normal. He was much depressed and longed to go away from it all for a year, which he could well afford to do.

Treatment. He was sent for three weeks into the mountains. This time he fully recovered on account of the light diet which he took. Breakfast and supper were fruit and milk, and his midday dinner was vegetables and six ounces of meat; after a few days cereals were added morning and night. He has remained well for three years having been taught proper hygiene.

THE FUTILITY OF EMPIRICAL SUGGESTION

Suggestion of any kind is a very crude

measure at best and does nothing to build up self-mastery. It weakens rather than strengthens the resistance to incoming ideas or habits in the future. It makes one dependent upon the behest of another. (It is a morphine of the soul.) Not only so, but it is inadequate to remove symptoms when compared with the superior analytic and synthetic methods we now possess. Here is a case which shows inadequacy of crude "suggestion."

CURE OF A TIC WHERE SUGGESTION HAD FAILED

A boy from North Carolina was referred to me by Dr. T. C. Martin, suffering from a "barking and bowing" tic. When he sat down he would utter a series of barks, and at the same time the trunk would double up. The attacks had begun suddenly three months before in the middle of the night after he had eaten sandwiches sent by his parents from Washington and had been thinking despondently about how nice it would be to be back there. He had also been thinking a good deal about his "inside", for which he had been much doctored. This patient had been treated electrically, which he was assured and no doubt believed, would cure his trouble; then by direct suggestion, and finally by the powerful suggestion of the strongest medicine known, a drug obtained from some remote country and guaranteed to cure. All these methods proved utter failures.

Treatment. Because there was not time, there was no attempt to delve completely into the mental life of the patient, but it was deemed sufficient to rectify the physical manifestation of his mental disorder, whatever its precise nature might have been. And note well this was done by psychophysiological means. There was no attempt (as had been made by the previous suggestioners) to bludgeon in, by mental suggestion, a sort of panacea, a cure-all, like the belief of the Christian Scientists, and thus reverse the whole trend of his mentality without the least attempt to discover either what the matter was or how it arose. This patient was placed in a reclining chair. The

muscles of the abdomen were pointed out and their activities explained to him, and he was taught how to voluntarily move them and by doing so counteract the spasms which were making his life unbearable. Two days' drill sufficed and the patient was and still remains cured.

EFFICACIOUS MEDICAL HEALING OF NEUROSES— PSYCHOTHERAPY

Opposed to the irrational and haphazard methods we have just examined is the real psychotherapy. It is dependent neither upon "suggestion" (though it rarely avails itself of this method as a short cut to save time in selected cases), nor upon morbid anatomy (though the diagnostic knowledge of this branch of medicine is a requisite of its efficient practice.) Neither does it rely upon the domination of the weak and ailing by a stronger will. And the mere development of confidence in the doctor is not its secret. If any proof in this last fact were needed, I could cite very many cases where both doctor and patient have wondered at the failure in spite of complete faith in the family doctor. The North Carolina boy case above cited was just such an instance.

The real psychotherapy is rather a method of scientific psychanalysis and synthesis, a dissection of the mental tendencies until the real root of the fault is detected, followed by a putting of them together pointing in a new direction, so to speak, and keeping them pointed in this healthy direction by frequent adjustment of vacillating tendencies, and seeing that the patient's own will is used in the effort. It takes time and skill, as well as knowledge of psychopathology. Its rationale is illustrated by the cases which follow: The first of these shows the effect of a correct analysis.

CURE OF CHRONIC FEAR

A professional man, 28 years old, gradually withdrew himself from society and of friends, later denying himself to all but one. He abandoned work and began to neglect food. At night he would pace the floor for hours. He looked haunted and ashamed. He twice took steps toward suicide. There is no need

to enlarge upon a picture so familiar. Suffice it to say he is cured.

He was most distrustful of the possibility of cure as he had six months previously visited specialists who had failed to benefit him. As he described it, their procedure seemed to have been somewhat crude attempts at hypnosis with suggestive assertions denying his symptoms and their cause, which he had declared to be a state of fear.

It was mainly in the presence of other people that his fear came over him; and he was much ashamed all the time because of this fear. It was quite different from the timidity of adolescence. As a small boy he was noted for his bravery, and would fight against the boys of the neighborhood. The cause of his fear was unknown to him; and he believed it was hereditary, as one of his brothers was worse than himself and had become a wanderer whose whereabouts would be unknown for months at a time. The patient had been fighting against this fear at least since his college days, he had tried playing football to make him courageous, but without effect; and so when he graduated, he plunged into a camp of rough lumber men and took his part as a laborer with the rest. Six months of this gave him still greater admiration for courage, but in no wise improved his own. He then returned to civilization and plunged into his studies and office work, hoping to attenuate the fear which gripped him; but instead of this he gradually lost mastery, and after six years of struggle fell into the state in which he came to me.

Genesis. After a physical examination which disclosed no important features except great loss of weight and a high degree of erythema, psychological exploration was begun by my stating to him that either he was, as he believed, a physical degenerate or there was some psychological cause for his fear; in which later case the discovery of that cause might lead to the finding of a means for its removal and the ending of his fears. He was then told to search his memory for fear-bearing experiences in early life, but could think of none. Then period

by period running back from his college days had attention turned upon it, until the patient recollected to have been morbidly fearful at each time, until finally he declared that he had always been afraid and must be therefore a physical degenerate. He was then asked what incidents of his early childhood had particularly frightened him, and at first recollected nothing. Wild animals, darkness, fire and people were each in turn presented as possible factors. But it was not until the remembrance of a near relative was recalled that the key of the situation was found. It seemed that this individual's ideal of up-bringing was the hardening process, and that the theory he held was that every boy's moral welfare required the knowledge of fear. These two objects were combined in such a procedure as throwing the lads into the water while they were unable to swim, to fish them out only when they were going down almost breathless. In winter, a favorite method was to throw the boys while asleep in the morning into a bank of snow and snowball them home to the door. Another procedure was to chase the children with a stockwhip from the front door to a tree in the distance. The result of all this was not hardening, but a breeding of chronic fear in these two lads. The patient's recollection of these performances reached back to the age of 4. But he had completely put out of his mind these incidents and indeed, failed to take into consideration his cowardice as a young boy, believing it to have originated in the high school.

Treatment. When the source of the fear was discovered the patient declared that he did not see how this knowledge would benefit him. It was then explained to him that his fear was merely a psychical habit and not an instinctive reaction. He was told that habits can be re-formed if intelligent effort is employed, but that he was in no condition to begin re-formation of habit until he had slept and eaten regularly for some days. When he objected that he had long since given up narcotics, as he was worse than before taking them, he was told that

I never found it necessary to give narcotics, that I should induce sleep without them and that after this he would be less unwilling to eat.

Accordingly, treatment was begun by my visiting him in bed and hypnotising him into sleep. He slept 18 hours, then carried out the dinner program we had previously arranged. Hypnosis was performed 3 times in all, but not on consecutive nights. In the meantime, re-education was begun.

To make a long story short, this consisted of a reconstruction of the fear situation of his infancy, and the pointing out of the non-necessity of the fear sequence which had occurred and the insistence of the possibility of reconstruction of his reactions towards himself and the world. Numerous instances of the dependence of emotion upon ideas were given; and he was instructed concerning reconditioning the reflexes as investigated by Pawlow and Crile; and he was shown the physiological perniciousness of the fear impulse.

He struggled with the situation bravely; but I left him alone after what proved too short a period, namely four days, and he lost courage and began to relapse until a friend drew my attention to the situation after a week. We then resumed relations as he felt the need of help. After four more days of re-education, the tide turned and he obtained control of his fear.

He celebrated the occasion by an impressionist account of his situation from which I extract what follows:

"I've won! I've licked him! I've driven away the beast that was driving me mad. As soon as I knew just what he was, and why he came. I poked him with my finger, and he bust'd. He's not gone entirely he's crouched growling nearby, waiting to jump on me again. And occasionally he gives me a twinge, such as some men get when passing a looking glass. I laugh at it. I'm on my back no longer, I'm fighting,—I'm fighting now, and my battle's all but won. I wrote my last letter on Friday. Yesterday I had fun. I got up singing in the morning, dressed carefully and went

down town. I ate my breakfast slowly, but made the waiter scurry. I roamed the streets. A week ago I slunk into a restaurant, because I was fearfully hungry, unshaven, unshorn, and unkempt, and the waiters all laughed at me, and I hurriedly gobbled my food and crept trembling out again. I went back there yesterday and bullied the whole crowd. One of them came up grinning, and I looked him in the eye, and the grin changed to smirk. I kept him standing waiting, while I read the menu through and I said, "Bring me this and this and that,—and Waitah, hurry! and don't you dare to not to do so always." Ten days ago I sneaked up to the Sherman statue, by moonlight and looked at the statue of a soldier, longingly and wondered how he could be. Yesterday I walked up to him laughing, and wished I could shake his hand."

Reaction. It is over a year now since the above account was written and the patient is now successfully practising his profession and is still happy, not to say buoyant. At first indeed, he was so expansive that I suspected a periodic psychosis in which my intervention was a mere coincidence; but that that is not the case seems to be shown by the gradual subsidence of the extravagant behavior which the patient at first showed. Besides, another instance of still greater disturbance of this kind recently came to my attention wherein no such doubt could arise. It was that of a woman of 28 whose vision was restored by removal of congenital cataract, Dr. Reid Russell of Ashville, the operator, informed me that the patient's reaction was almost maniacal in her joy at her new sensations and at her unaccustomedness to the adaptations they required. So I interpret this young man's extravagance of behavior to his incapacity at first to adjust himself to the new manner of looking upon the people who surrounded him, his former ever-present dread having been displaced by a disregard almost contemptuous, with a consequent effervescence of the ego disconcerting to those who previously knew him.

Interpretation. This case is an instance of:—

(1) An anxiety state induced by mechanism other than that postulated as essential by some psychoanalysts.

(2) The induction of an emotional state directly from an idea.

(3) The forgetting of the initial circumstances which induced the concept which governed the life so detrimentally.

(4) The revelation of the initial circumstances by an analysis so elementary as to be no more than a particularly intelligent anamnesis, in that it neutralised scepticisms and antagonisms and proceeded with patience.

(5) The failure of catharsis per se to alleviate the condition.

(6) The need of re-education, that is psychological reconditioning for the remaking of mechanism.

(The hypnosis used was merely incidental to secure sleep upon certain occasions.)

ATTEMPTED SUICIDE; PSYCHOGENESIS; THERAPEUSIS

A farmer's son of 22, after some weeks of moody behavior, threw himself into a creek. He was quickly rescued by his brother, who reproached him severely. This did not deter him; for a few weeks later he swallowed laudanum. This led to his removal to a sanatorium (where, after a few weeks, he crushed and swallowed an electric light globe. Later, he gained access to a medicine cupboard and again swallowed laudanum. So his friends in despair brought him to a doctor friend in Washington, who immediately asked me to see him.

Examination showed no physical disorder; but I discovered that there existed a serious psychological situation, which no one had ever suspected, much less attempted to penetrate.

The boy was so ashamed of himself, although still determined to commit suicide, that it was hard from his whispered utterances to reveal the facts from the analysis of which was furnished the very simple explanation of his distressing predicament.

To state the position briefly:—Upon this boy has developed since the death of his father, the management of his mother's

farm. But a younger brother had succeeded in interfering a good deal with our patient's plans, much to his mortification; and when also neighbors' meddling was acquiesced in by his mother, the situation became intolerable, as he had already failed in an attempt to work happily in another environment which he tried for over a year. So that suicide seemed the only escape. The manner in which the psychological situation was ascertained is best judged from a transcription of the questions and answers of part of the examination:—

"What is the matter"?

"Stomach troubles; if I could get well I would be all right."

"Have you any pain"? "No."

"Why are you then complaining"? "Because my bowels do not work."

"Why take so much laudanum"? "Because I think I should be better off if dead." To a further question, "If I could be cured I would be content." "I could not stand being worried by my brother of 19 and my sister who is 24, and my mother. I want to go and work for myself I should get on better."

(He had forgotten to mention his sister and when she was mentioned, he stammered.)

"They pick on me, for example, if I get up too early; and I always feel I could not do the things I want to do. But when I went to California, I felt uneasy even when working alone. I have been dissatisfied all my life. I do not know what my trouble is or what I have done different from any one else." To a further question "I went to school."

"Have you done anything with which to reproach yourself?"

"No. I think there must be something wrong with my brain." To a further question. "The whole case is imagination."

"Why do you think so"? "I do not know."

"Since when have you thought so"? Since four years ago when neighbors would interfere with what I had done on the farm, for example, in planting the corn, people would comment upon it and my mother

would take their advice and overrule my way."

"Why do you take it so hard"? "Because I have poor judgment."

The inquiry was then pushed with regard to his relations with the opposite sex. He declared that he had liked their society, although he did not dance and was not "immoral" as he called it, but he confessed his bashfulness and also that he thought girls were not worth spending so much money upon as was necessary; he did not think they were dependable and he had decided not to marry because of seeing so much of married life; he had never cared for any particular girl, although he had often desired them, but had not the "face" to make advances toward what he thought to be wrong, as at school boys and girls had been separated, besides the girls laughed at his timidity. Accordingly, he told the other boys that their indecent talk was wrong and was laughed at for his pains and made still more bashful and ashamed.

However, he had dreamed of erotic situations, which made him feel ill; and he feared it would injure his health. As a small child, his dreams had been terrifying, such as falling and being killed, or being run away with by horses; but these had not troubled him since. There had been no spontaneous diurnal emissions; but he has provoked them until he was 18 and had then ceased to do so, as other boys often teased him about it and said that he would be impotent as he had ruined himself hence he was much ashamed.

Interpretation. The failure of this boy to stand up for himself was due to his own shame at the onanism he had practised and his fear that it was injuring his mentality; so that he was not able to stand up against other boys, by whom he was much teased, in consequence of which he withdrew from social life, especially where girls were concerned and became taciturn and irritable.

He had to confess that if he could be well his stomach pains from the glass and of what he thought incurable, viz: "a hope-

less mental inferiority which masturbation must have caused," he would be willing to live and would like to work.

Treatment. He was assured and examples were given him to show that he was quite mistaken about the effects of onanising; and he was asked to think over until the next day the explanation I gave him concerning the genesis of his shame and timidity, meanwhile promising not to attempt suicide until he had seen me again.

The next day discussion was resumed, until, in less than a week, the boy could be trusted alone, not only in the hospital grounds, but in town. He went home in ten days perfectly cured. The pains referred to the stomach, which of course disappeared, were merely an attempt at fixation of his discontent upon a bodily symptom. The glass swallowing furnished the suggestion for this, a very common mechanism in hystericals. He has been at work and in good spirits ever since, now nine months ago. The treatment was conducted in a general hospital and the maximum of freedom was allowed the patient from the first, the greatest tact being urged upon those who nursed him.

Remarks. It should not be necessary to point out that much of what the patient said about renouncing marriage for instance, was a mere excuse for his own inadequacy and shame. But it is necessary to assert that the sexuality as such was not the important feature in this case in spite of its conspicuous featuring in the history. The really efficient pathogen was incapacity of social adjustment due to shame at his own failure in social adaptation because of the half-heartedness of his attempts, due to erroneous notions the consequences of his conduct.

The patient actually knew all the facts, but from ignorance he was unable to interpret them. When their import was understood, he learned to adapt in only a few weeks. The case is again an instance of conceptual error of which the effective situation is merely consequential and spontaneously disappears upon rectification of false notions which produce it.

LOVESICKNESS IN A MAN

Another case of contemplated suicide in a young banker was caused by a period of prolonged strain and overwork, culminating in a serious rupture of an engagement which lasted six years. The patient was lachrymose, agitated, trembling by fits and starts; he would rush from the table suddenly with the desire to kill himself, or break into tears without provocation, especially when with his family. At his work he appeared comparatively calm, but it was only by an intense effort which further debilitated him. He had lost forty pounds in weight. His relatives exerted him to buck up, forget it, or sometimes chaffed him about it all. This only aggravated his distress which a progressive insomnia kept augmenting.

The treatment used was to convince him of the need of distraction from his painful ruminations and that this would be done only by hard physical work, which would at the same time increase his resistance to painful memories, by removing the weak irritability of his nervous system. He was sent to the country two or three times before the right kind of place was found and before he learned to arouse himself from the bodily lethargy and mental concentration upon his trouble. Eventually the right place was found where wood-chopping and farm work, kept his mind occupied and restored him physically. He now feels better than he has for ten years and is again at the head of his business.

The love-sickness of this patient was only one of the factors in the case, but it is frequently the outstanding feature of a nervous breakdown. It is very wrong to meet it lightly. The proper analysis of the situation should always be undertaken and the cooperation of the patient enlisted toward overcoming the troubled mental state. There is practically always some psychological fact concerning which the patient needs enlightenment after which he can manage the situation.

SUMMARY

What is familiarly known as the influence of the mind over the body needs no illustra-

tion now-a-days; and a historical retrospect would only burden an attention likely to be strained by what is already involved. But an understanding of how disturbances apparently physical, are easily influenced by means we call mental, is clouded in errors most detrimental to the understanding of not only what we call individual disease but of the behavior relationship of human beings in general.

My first endeavor has been to expose the fundamental fallacies and dangerous implications imminent in the practice of those persons or sects who pride themselves upon being non-medical. But my hearers may take no pride that they are not as these, for my second endeavor has been to show that for the most part the mental healing of many medical men is not only less efficacious, but more unscientific than that of the mental healers themselves. I have made no explicit demonstration of this latter contention; for it is so apparent among the facts related that even he who runs may read. My third endeavor is to convey an inkling at least, of the principles of the methods which should be used against certain functional nervous disorders. It is not only the limitation of time which prevents a full exposition. A more important reason is the lack of record of therapeutic details, absent because the attention of the operator is so fully occupied in the practice of his art that it is not possible for him to describe his procedures at the moment; but the main obstacle to adequate presentation of psychotherapeutic method is the great lengthiness of the portrayal to which it would take one for the most interesting, important and instructive type of case, unless one were to employ a combination of phonograph and cinematograph, a stage not yet reached in current clinical teaching.

In the therapeutic results of the kind I describe are by loose thinkers attributed either to suggestion, to faith or to confidence in the physician and it cannot be too strongly stated that neither of these factors is the true one in any of the cases with which I have to do.

Were confidence the important element, I should not succeed where the family physician had failed; for while in him the patients usually put a trust almost blind, to me most of them have come almost sceptically. Confidence, of course, has to be gained; but as neither apparatus nor manner is of an imposing character in my consulting room that confidence comes only as a result of the patient's appreciation that an understanding of the situation is being developed.

As to suggestion, I take the greatest pains to avoid fallacious short cuts to the removal of symptoms, of which I seek to reach a foundation by giving the patient a rational understanding. When this is done, the patient needs no moral support from the physician nor anyone else; for having learned his own psychology he knows how to direct himself. Hence, when the cure is complete, relapses do not occur.

It would have been desirable to have included in this account some cases which had already visited the faith healers without success. I have several such, of which, unfortunately, social considerations prevent the full report, without which there would be little instruction to readers.

—————R—————

Toxicity of Arsphenamine

Roth has determined that if an alkalized solution of arsphenamine or a solution of neoarsphenamine is shaken in the presence of air for one minute, the toxicity is increased. He points out that arsphenamine preparations which are soluble with difficulty are likely to be shaken to aid in the solution of the drug with the risk that chemical reaction may occur (Jour. A. M. A., Oct. 16, 1920, page 1072).

—————R—————

Some diseases are rare because their recognition is rare.

—————R—————

When the odor of urine is strongly ammoniacal, there is probably deficient alkalinity of the blood. Acidosis?

BELL MEMORIAL HOSPITAL CLINICS

From the Urologic Clinic of Dr. Nels F. Ockerblad.

CARCINOMA OF THE SCROTUM

We have for our consideration today a patient who comes to our clinic for the relief of a tumor in the right groin. He is a white male thirty-nine years of age. This tumor appeared in his right inguinal region less than two months ago and has grown rapidly until it has reached the present size, which as you see is about that of a Tangerine orange. Eighteen months ago he had a small



growth removed from the upper right portion of the scrotum. The family history is negative. He has a wife and two children who are living and well. He had gonorrhea and a bubo twenty years ago. He has a skin eruption for which he has had treatment for a number of years and which has been called Psoriasis. His blood Wassermann is negative with two antigens and there are no clinical evidences of syphilis. He has lost some five or six pounds in weight during the past two months but attributes this to worry over his condition. The patient has a well marked cachexia.

DISCUSSION

The history, the physical findings, and the blood Wassermann rule syphilis out of our consideration, and since this is clearly not an infectious process, we are rather forced to proceed to the malignant diseases to account for this apparent new growth. Sarcoma is more frequently primary in lymph node than carcinoma. Since the tumor mass is quite hard and can be moved on its base showing that it is not attached to the bone it probably has not originated from bone. It is possible that it is a primary sarcoma of a gland of the inguinal chain. We have however a point in the history which in all probability would point the way could we but decide as to the nature of the small growth that was removed from the scrotum eighteen months ago. Now new growths of the scrotum are varied and many and include, sebaceous cysts, lipoma, osteoma, chondroma, soft and hard fibroma, and cutaneous naevi. Telangiectasis is also often present. A case of intrascrotal hydatid cyst is on record. Epithelioma of the scrotum is a subject that has occupied a considerable place in British Medical literature because it is, in part at least, an occupational disease and occurs frequently enough in chimney sweeps to justify the title "Chimney Sweeps Cancer." It has been shown that this disease was twice as common among chimney sweeps as among other males. This disease commences as a so called soot wart, and most frequently at the lower anterior portion of the scrotum. In the case we are considering you will note that the scar from the removal of the small growth is at the right upper portion of the scrotum. The soot wart of the chimney sweeps may remain indolent for a long while. Metastasis to the superficial inguinal chain of lymph glands is quite common. A similar epithelioma of the scrotum is seen among tar and paraffin workers. Some of the nomadic Khurds who live in parts of Persia and Turkistan are subject to a cancer of the scrotum which is said to be due to the custom of carrying suspended under their skirtlike garments a pot of burning charcoal. Carcinoma of the prostate has been known to

epread to the superficial inguinal glands, but we know that the more usual point of metastasis is to bone.

That this tumor is the recurrence of the small growth that was removed from the scrotum eighteen months ago, there is but little doubt. Primary carcinoma of an inguinal lymph node is rare. Carcinoma of the scrotum according to Hertzler, Ewing and others is not so very rare. The statistics of the Registrar-General of St. Bartholomew's Hospital, London, during the three years prior to 1892 show that of 36 deaths due to cancer, there were 23 due to cancer of the scrotum, one of the lip, two of the face, and ten of other organs.

From the character and location of this new growth and the history we may safely make the diagnosis of metastatic epithelioma of an inguinal lymph node from a primary scrotal carcinoma.

In a patient who is as evidently toxic as this man is from the absorption of the products of metabolism of this malignant growth the prognosis is very bad. However operative procedure of one sort or another must be considered because of the proximity of the tumor to the great vessels of the leg. It can be readily seen that invasion of these vessels would rapidly cause gangrene of the leg.

Note. This patient refused operation but later turned up in another hospital and was operated upon. Sections confirmed the diagnosis.

—R—

Clinic of Dr. Thomas G. Orr*

CHRONIC OSTEOMYELITIS

This patient is a discharged soldier 31 years of age. He was wounded in France in October 1918 by a high explosive shell. He was in a hospital abroad for eleven months where he was treated for a compound comminuted fracture of the right humerus followed by osteomyelitis. For the latter condition he was operated upon once. The bone united and the wound was entirely healed when he left France. In March 1919 he was

*Clinic given October 3, 1920 for the Medical Officers of the 98th Division during their reunion in Kansas City.

again operated upon for chronic osteomyelitis at Fort Riley. A sequestrum was removed and the wound healed in four months. He had no trouble until March 1920 when drainage again appeared in the scar. Since then, during the last six months, the sinus has healed and opened three times. His general health has been good since leaving the Army.

Examination shows a scar 10 cm. long in the right deltoid and another about six cm. long on the anterior surface of the upper arm. The deltoid muscle still functionates although there is considerable limitation of motion at the shoulder. There is a small discharging sinus in the deltoid scar. The x-ray shows a bone cavity about two cm. in diameter containing a small sequestrum.

As you can see we have excised the long scar in the deltoid with the sinus tract, removed this thin shell of sequestrum and chiseled away enough bone to make the cavity dish-shaped. We have partially closed the wound and packed it with iodoform gauze which is to be removed within 48 hours.

The diagnosis of chronic osteomyelitis, of which this is a typical post war example, is usually not very difficult. The etiologic factor may, at times, be somewhat obscure but if there is a history of injury, as in this case, the causative factor is clear. The two chief clinical signs are bone enlargement and discharging sinus or sinuses. Often bare bone can be felt through the sinus with a metal probe.

The value of the x-ray cannot be overestimated in the diagnosis and progress of the disease. It not only gives an excellent picture of the extent of the disease but aids in determining the existence and location of sequestra.

Osteomyelitis was one of the scourges of the World War. It has been estimated that there were 300,000 cases in France at the time hostilities ceased. Many of these cases resembled the case shown here. A cavity exists in the shaft of the bone that will not heal. Usually, but not always, sequestra are to be found in such cavities. Sometimes very thin spicules of dead bone may lie behind

dense bone and not show in the radiograph.

The effect of infection on osseous tissue is either a production or destruction of bone. This osteosclerosis or osteoporosis depends upon the severity of the infection. We are all familiar with the thickening of the cortex of long bones from chronic infection and the sometimes gross destruction of bone in acute osteomyelitis. I have been much interested in the bone changes that occurred in some of the War amputated. A large percentage of the amputations at the front were done by the "guillotine" method which exposed the bone to infection. The two effects of infection were well shown in these cases, often both processes in a single stump. The infection frequently produced a complete "ring sequestrum" at the cut end of the bone stump by causing to be separated off from the shaft a definite ring of bone. On the other hand, there were often one or more spurs on or near the cut end of the bone. These spurs sometimes extended into the muscle planes or followed the sinus tracts. Spurs such as these may be seen following osteomyelitis elsewhere.

In the treatment of chronic osteomyelitis three things are to be considered, viz: the removal of the sequestrum, elimination of infection and the obliteration of the bone cavity. To accomplish the first is ordinarily an easy matter. The infection in these long standing cases is usually not severe. The organisms have lost their virulence or the patient has acquired a tolerance, or, we may say, the patient has vaccinated himself against the infection. The complete obliteration of the cavity is sometimes not easy. This is especially true of cavities near joints where there is a danger of opening into the joint capsule. An effort should be made at operation to remove all overhanging bone edges and convert the cavity into a shallow saucer-shaped depression. Enough bone should be removed to permit the soft parts to fold into and obliterate the dead space. If the destruction of bone has been too great for this or the scar tissue prevents, it may be well at a later operation to place in the cavity a skin or muscle flap. This is especi-

ally advantageous in those cavities near joints into which the tissues will not readily fold. I have seen one case of osteomyelitis of the ilium with a deep cavity that was filled successfully with a pedunculated skin and fascia flap by tacking the free end of the flap deep in the bottom of the cavity with a carpet tack. The transplantation of fat into bone cavities is of somewhat doubtful value although successes have been reported.

In the badly infected cases Dakin solution is of undoubted value. The bone cavity may be packed with dakinized gauze or treated with frequent instillations. When the infection is reduced to a minimum muscle or skin transplants may be made or further operation done on the bone. Many cases may be packed with ordinary iodoform gauze to be removed in 24 hours after the oozing has stopped. When such a pack is removed the soft parts should be crowded well down against the bone with gauze dressings. We have packed the wound in this case. In a short time this will be removed and the deltoid muscle pressed down to fill the space. If a severe infection should develop Dakin solution or a hot moist pack would be used. I believe immediate closure would often be successful but we seldom use the method. Special effort should be made to sterilize the wound either before or at the operation to make this a success.

Finally I wish to emphasize conservatism in time of operation in these cases. Too early operation with removal of bone before sequestration is complete is often productive of further spreading of the infection and multiple operations. Give the sequestra ample time to separate and the tissues time to well localize the infection. If an involucrum is necessary for support in the case of long bones time should be permitted for growth in strength of the new bone. Rapid healing is promoted by producing shallow bone wounds so the soft tissues will fold in and obliterate the space.

Later note! In this case the pack was removed in 48 hours and the tissues pressed against the bone by the dressing. The wound healed without infection. In December 1920

I operated upon this patient for suppurative appendicitis. At this time the arm wound was still soundly healed.

—R—

Controlling Anesthesia

When a solution of a local anesthetic is injected into a tissue its effect is limited by the rapid dispersion of the fluid; that is, the fluid is absorbed and carried off by the circulation, and the anesthesia is of short duration. True, the surgeon can control this condition when operating upon an extremity, as a finger, by throwing a ligature around the member, but even that procedure is open to objection.

If a means could be devised to hedge about the area of operation without engorging the tissues, such a device would be in instant demand. No mechanical invention has yet offered itself, but we have an almost perfect check on the rapid absorption of the anesthetic in Adrenalin. This substance is readily soluble; it is compatible with all local anesthetics, physically, chemically and physiologically; and it is not irritant. Furthermore, it controls hemorrhage and, in operations on the mucous membranes, affords the operator a clear view of the field. By limitation of the absorption of the anesthetic it is possible to do an operation with less of the drug, and thereby the risk of toxic effect is minimized.

This subject is dealt with more at length in the advertising section, where the reader will find the fifth of the series of short articles on Adrenalin to which we have had occasion to refer in previous issues of this journal. A perusal of the article and its preservation for future reference are suggested.

—R—

The Gasoline Kids. "The language of children as well as that of parents is fashioned by the age in which they live—note the following:—Small Helen objected to having her throat sprayed—"I wouldn't mind if you let me honk it myself."

Little Tommy—"Can you spell? Sure—I can spell words of three cylinders.

The dog was limping on three feet—"Look Daddy! Tige is not hitting an all his cylinders."

"Why Teddy how did you catch that chicken?" "Oh! I des runned him and runned him till his gas gave out."

THE JOURNAL

of The

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W. E. McVEY, M.D. - - Editor

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The Future of Medicine

The best outlook into the future is obtained by a study of history. The history of the past forty years of medicine suggests many and greater changes than have occurred during that period. The vast additions to the general knowledge of disease, the great multiplication of technical methods for the detection of disease processes and the etiologic factors involved, the rapidly multiplying number of instruments of precision both for the detection and the treatment of disease, have added numerous duties and onerous burdens to one who properly qualifies himself to minister to the sick. A careful study of the current medical magazines will convince any, but a congenital egotist, that he is neither properly qualified nor sufficiently equipped for the general practice of medicine. Some one may yet define the limitations to the field of practice indicated by that term "internist" which some men now prefer to the older "general practitioner." According to the present significance of the term an internist confines his practice to the diagnosis and treatment of the internal organs, but since the legitimate specialists have already separated the general practitioner from all of his original field but internal medicine it has really become a choice of names by which to call himself. Except that one who calls himself an in-

ternist has not relieved himself of any of the responsibilities of the general practitioner but rather assumed greater responsibilities, for the term internist has come to carry with it the suggestion that one who so designates himself is specially qualified and properly equipped to treat disease of the internal organs. One doubts if many general practitioners, and wonders if many of those who claim to be internists, are so qualified and so equipped.

There are comparatively few men in the general practice who can afford the expenditure necessary for a complete equipment and there are fewer of these whose income would justify the necessary expense for replacements and maintenance. One whose business is sufficiently voluminous and lucrative to justify these expenditures would require one or several technical assistants, otherwise the time consumed in conducting the multiplicity of technical procedures required would seriously curtail the volume of his business. The increase in fees would offset some of the expense, but not every one is able to confine his practice to the affluent afflicted.

In the larger cities there are a few fortunate ones who are able to do all of these things and do them profitably, but what concerns us is how the practitioner in the smaller cities and in the country will be able to meet these rapidly growing obligations.

Apparently a very easy and simple solution lies in group practice, but practically it has not met with great success in the West. Very few of the group organizations that have been formed have shown any remarkable degree of permanent success. The necessary cooperation is difficult to sustain, the matter of equalizing compensation is productive of dissension, and the most carefully devised plan for the distribution of cases will breed jealousy.

Few men are wise enough or broad enough or old enough to dominate and control a half dozen active ambitious experts in medicine. A few groups have apparently reached a permanent basis and are acquiring prestige, but at the expense of those who are attempting to carry-on in the old way. The

results are disastrous to the harmony of the profession. As one may put it: "The doctors there have gotten to hate each other so bad that they can't even be civil to a man from any where if he happens to be a doctor." Such an attitude is unfortunate and it has had a deterrent effect upon further group organization.

Well equipped hospitals and organized staffs will meet the requirement to a certain extent but by no means so fully as the group plan.

There is a solution to the problem, one which will be less welcome to the profession than the group plan and offer the greatest insult to the traditions of medicine. The invasion of capital has already begun and unless the profession finds for itself the means by which the best service can be given the people, medicine will be exploited by capitalists. Clinics will be established in every large or medium sized city in the land, every facility for thorough diagnosis and efficient treatment will be supplied, and men thoroughly qualified for their duties will be employed. The salaries offered will overcome any ethical objections of those desired for the service, and the promise of superior service will appeal so strongly to the public sentiment that any criticism offered by other members of the medical profession will but add to its prestige.

Is it a dream? Perhaps so, but it only needs that the financial possibilities of such a plan be recognized in the proper quarters and it will be no longer a dream but a fact.

—R—

Insurance Examiner's Fees

Thirty years ago the old line insurance companies paid \$3 and \$5 for examinations. Since then several little requirements have been added to the examination that require time and at least some knowledge and skill. They still pay \$3 if they can, \$5 if they must. If you demand \$5 they suggest that you should be classed as a profiteer. Recently the Bureau became interested in a claim against an insurance company in Nebraska for a balance due on fees earned. The examiner had notified the agent of the com-

pany that he would not make examinations for \$3. They apparently ignored this notification for several months and declined to settle for the examinations except on a \$3 basis. We quote the following from one of the letters the doctor received from this company. "The increases in fees that the doctors have been demanding is not what we consider just but find that doctors are like a good many others charging more because they can get it, and that the medical societies have even threatened to throw them out of the society if they did not uphold the increase in fees. We have a few letters from some of the societies that would be interesting reading to the United States District Attorney if we wanted to bring a test suit which we know would not do us any good were we to try to turn them over to him."

Of course this reference does not apply to any of the medical societies in Kansas, and we doubt very much if it applies to any in Nebraska, in which state this little old line insurance company has its headquarters. That, however, is a diversion from the point at issue. It seems that we ought first to determine whether the man who renders the service or the party to whom the service is rendered shall fix the fee. When the service is rendered by a physician to his patient there seems to be no doubt in the matter and the right of the physician to fix the fee he shall charge is recognized by both physician and patient. But when the service rendered by the physician is to a corporation a new scheme of things is introduced and the corporation fixes the fee. Why? The corporation has no right over the individual in a settlement for a physician's service except by his acquiescence.

If five dollars is a reasonable fee for a visit to Mr. Farmer's wife, it would not be regarded as good business to charge three dollars each simply because fifteen or twenty visits are made. But when an insurance company or other corporation is the recipient of the service it seems to make a difference. There is a very capable physician in this state—many of them, in fact, in this and

and many other states,—who would charge a man or woman, who came to him for the purpose, not less than twenty-five dollars for a complete and thorough examination and an opinion—an examination requiring no more time, no more skill and not one fifth the clerical work required for an insurance examination. But this same physician will make an examination for an insurance company for five dollars, often keeping three or four of his patients waiting for a half hour while he does it. It is hard to justify this attitude toward any form of corporation business. It is hard to reconcile it with good business principles. Either the examiner's service is not worth what he charges his private patient for it, or he is making a ridiculous discount to the party most able to pay its full value, or the examination made for the insurance company is not what it purports to be, is hurriedly and carelessly made, and the opinion worthless.

One may assume that an insurance examination is more than a matter of form, that it is an important factor in determining the fitness of an applicant for insurance. Evidently there are insurance companies that do regard these examinations as matters of form and, no doubt, with some of them they are only that and nothing more.

A carefully conducted insurance examination stands between the corporation and a certain per cent of unnecessary loss, and is recognized as of sufficient importance to justify the expenditure by any reliable insurance company of considerable money in maintaining a medical department. Because the examination stands between the company and a considerable per cent of unnecessary loss, every carelessly conducted examination is a potential loss of from one to several thousand dollars and every poorly paid examiner is a possible producer of careless examinations.

—————R—————

Chips

Psychoanalysis shows the type of brain the analyst has.

A woman's brain reaches its greatest weight at about the age of twenty-five years.

A disproportioned, over weight or excess fleshed body is not conducive to health, beauty or long life.

Three thousand and three persons were killed by automobile accidents or died as a result of the injuries therefrom during the past year in the United States.

We do well what we like to do. The doctor who does not like to practice medicine does not do it well. It would be better for his patients and more profitable to himself if he would quit practice and go to pounding rock.

Martin differentiates the pile from the hemorrhoid in that the pile is the tumor (ball) and the hemorrhoid the tumor plus any and all hemorrhoid structures below the anal surface. Hence a man may have hemorrhoids and not have piles.

Casy Wood says, "Fifty per cent of those wearing glasses are improperly corrected and fitted." The oculists and opticians are not to be outclassed by physicians in diagnosis. It appears that man cannot do, or won't do, anything but half right. However one of the sages said, "to be able to say of a man living or dead, he was right a part of the time, is a great compliment."

The eereograph is a device which enables one to see a plant grow.

The epidiascope is an instrument invented by an Englishman, that will detect lies by magnifying the inflection of the voice.

A highbrow is one who tells you something you know in language you do not understand.

The panama canal zone is practically free of flies due to the daily removal and destruction of garbage. Hence there are no flies on the Panamanian.

Since tattooing the owners name on the dog has become a fad and an additional accomplishment required of the dog catcher, the State Medical Examining Board of California indicates silent willingness to ask the state legislature for the needed examining committee and an appropriation to pay the canine artists.

A Kansas Doctor in California says, "not only has every stalk of corn in Kansas got four ears on it this year but where the tassel is in ordinary years there is a gourd with a quart of shelled corn in it." Jonah is out-classed.

More than ninety per cent of the alcoholic drinks in the Phillipines are derived from the palm trees. The native digs a hole in the side of the palm tree and the juice runs in it and in a few hours it ferments. The native sucks it out and it puts a T. N. T. head on him. If Uncle Samuel ever strictly enforces prohibition in his domain, he will have to dump the Phillipines.

When the fig-leaf fashion in wearing apparel changed, there was a call for bids to furnish a more suitable covering for the body. The Jew being the lowest bidder got the contract and has kept it ever since. The heathen, through envy or jealousy reported that is why the Hebrews were called the chosen people. And further,—the heathens said that the Jews land was so poor that they had to fertilize graveyards to get in on the resurrection. Why this should have been kept a secret up to the present time (for this occurred some six thousand years ago) can be accounted for on the peculiarity of human nature, only, as illustrated by the honest old farmer who sold a horse to a tenderfoot. A few days after the purchase the tenderfoot called on the honest toiler of the soil and told him that the horse he bought of him was no good. What's the trouble? Why that horse has the worst case of heaves a horse could have and live. Yes, I know'd it. Well you didn't tell me anything about it? No, said old honesty, the fellow who sold the horse to me didn't say anything to me about the horse having the heaves and I thought it was a secret.

"The lymph compounds are a specific for nothing." So says the Bulletin Journal of Animal Therapy. However it says that for every three or four cases in which the lymphs succeed decisively there is always one case in which they fail absolutely, due solely to their not being equal to the job.

Statistics tell us that there are approximately 1,700,000,000 human beings alive on this earth to-day. That 550,000,000 are white and 1,150,000,000 are colored. And that the tendency of the white race is to double in eighty years, the yellows and brown in sixty years and the blacks in forty years. Moral: The white man will have to get a lunch on himself or go to the mat.

Fisk says that the lowest death rate is found at about twelve years of age. At forty it is three times what it is at twenty; at fifty it is four times what it is at twenty and at sixty it is eight times what it is at twenty. Judged by that standard, many

persons have passed the prime of life when they are twenty years old.

Viscount Gray says: "Every man should have three things, a home, a job and a hobby." This suggestion is fittingly applicable to a doctor. The man, professional or other wise, who leads a strenuous life confined to his profession or business alone, leads an isolated lonesome life. The man without a hobby to side track him at short intervals is likened to a traveller on a straight level road in a flat desert country in which the scenery never changes. Monotony wears him out before his time. Have a hobby.

Benjamin Rush said: "Medical liberty is as important as religious liberty." And every medical Jawsmith from that day to this, has used it as his slogan with the same result that the anarchist has with personal liberty.

It has been learned but recently, how the sex may be determined in utero. As usual it was not by the medical profession that it was found out. Little Ruth told her Aunt they were going to have a boy baby at their house. In explaining how she knew that it would be a boy the five year old said, "Mamma was sick when we had a girl baby and now Daddy is sick."

It takes vital energy to digest our food. It takes food to develop vital energy. The man who leads a sedentary life and eats three square meals each day is wasteful, aside from injuring himself. Wasteful because it takes too great a per cent of the food energy to masticate, digest and assimilate it and to eliminate the excess food he did not need. Injurious because of the work put upon his vital organs in excess of their ability to perform normally. Nature does not furnish an amount of gastric juice to digest the food we may eat, but for the amount of food we require for our systems at the time.

Astigmatic persons should never wear eyeglasses for close continuous work. The cartwheel lens is a fad and is as becoming and practical and dressy looking as a hat two or three numbers too big and resting down on the ears when worn.

If cross eyes can be corrected by glasses the earlier in life they can be fitted and worn the better for the child. Children $3\frac{1}{2}$ years old have been fitted and worn glasses beneficially.

"Binet claims that pressure on the eyeball

modifies the heart's action and that of respiration. Compression of eyeball reducing the heart beat from 100 to 60 or 40 and the murmurs disappear and at times arresting a spasm of tachycardia. This pressure on the eyeball causing respiratory and oculomotor reactions, should relieve spasmodic asthma and hiccup temporarily."

A large percentage of the cases of sickness should be considered and looked on as disgrace. Sickness from gormandizing, eating in excess because it tastes good, unnecessary exposure, overdoing ones self for gain is a disgrace and would be considered criminal in human law if such an offense or overt act was committed against our fellow man as is committed by us against the laws of our physical bodies.

A State Ministry of Motherhood (a cabinet position) has been established in New South Wales, Australia. The island continent recognizes that the human mother has rights to care and protection equal to that of the brute creation. Our own beloved country is a little slow in recognizing such a cabinet position to its guardians of health.

The average man takes about five pounds of solid and liquid food each day or one ton a year; pretty big menu.

"I notice that you are left handed Pat?" "No sar—the reason I cut me finger nails with me left hand is, me father told me it would come in handy if I lost me right hand."

When in doubt give the patient the benefit of the doubt and administer a placebo. It will be to the bed of the physician as downy pillows are.

A herd of cows led to the discovery of Epsom salts in 1618. These cows on Epsom common refused to drink the water of Epsom spring and on examination it was found to be impregnated with salt. Hence the name of the Epsom salts. Moral: Doctors in those days had cow sense.

Hulse reports the value of calcium chloride in the treatment of some dropsical conditions. In nephritis it manifests an active effect upon the dropsy and upon the function of the kidney. From 15 to 20 grains daily were required on account of the large amount of sodium chloride in the body of edematous patients. The calcium salts are supposed to exercise a sedative effect upon the sympathetic and autonomic nervous system. The fall of blood pressure is probably due to the

specific action of the calcium salts on the autonomic nerve endings in the muscular coat of the vessels.

"I doctor myself with the aid of medical books."

"Yes, and some day you'll die of a misprint."

"Mamma says you mustn't kiss me any more, Billie Jones, 'cause you might get microbes and I might get your erobes." (Sun Dial.)

Two microbes sat on a pantry shelf and watched with expression pained

The milkman's stunts, both said at once, "Our relations are getting strained."

Herring (Br. Med. Jr. 12-11) reports the results of some studies upon animals during pregnancy. The rat was used for these studies and the observations recorded were that during pregnancy there is practically no change in the size of the heart, kidneys and spleen. The liver is greatly enlarged. The thymus undergoes rapid involution and is much diminished in size. The suprarenals are slightly hypertrophied. The thyroids are diminished in size and the pituitary is diminished in weight with histological changes in its glandular lobe.

Vinsa advises against the administration of antityphoid vaccine in syphilitic, tuberculous or rheumatic subjects who have had lesions of the vocal tract because these may be roused into activity by the vaccination.

Kropa has reported a case of Eclampsia in which other measures having failed decapsulation of both kidneys was done. When the capsule was incised, it is said the kidneys, expanded and increased in size by one-half and a viscous fluid exuded from its surface. The case ultimately recovered. The opinion expressed was that eclampsia is caused by an auto-intoxication which is due to an increase in the thrombogenic elements of the blood and consequent affection of the liver and kidneys.

Van Ryssel maintains that, however great one's experience, one is not justified in diagnosing tubercle bacilli from the staining properties of the organisms in the urinary sediment. Inoculation of a guinea-pig is necessary and it must be certain that the guinea-pig has been previously healthy.

Loeser concludes from bacteriological examinations of vaginal, cervical and uterine secretions that infection of the uterus occurs in every normal puerperium. There is migra-

tion of the vaginal flora which reaches the internal os by the first day and the placental site by the second to the fifth day. It is stated, that all the varieties of bacteria which have been isolated from cases of puerperal fever are recoverable from normal puerperal uterus. Rapid uterine invasion is more likely to be followed by pyrexia. Growth of the ordinary vaginal flora proceeds as rapidly in cervix and uterus as in the vagina.

Howard (Buenos Aires) has reported a serum to be used against the tubercle bacillus. This serum has been prepared by the same plan as that upon which his serum against typhoid. A living culture is administered to a horse in increased doses, the serum from this horse is transferred to a second horse and the increasing doses of culture given to it, and the serum from this horse transferred to a third, the immunization continued and so on.

Two hundred tubercular patients have been treated with the new serum and there seems to be some promise of its efficiency. Three cases of tuberculous meningitis are said to have been cured by treatment with the serum.

—R—

Law for the Doctor

LESLIE CHILDS

VALIDITY OF AGREEMENT TO PAY ATTENDING
PHYSICIAN PERCENTAGE OF DAMAGES RE-
COVERED FOR PERSONAL INJURY
(Copyright 1919, by Leslie Childs)

In *Sherman vs. Burton*, 130 N. W. 667, the plaintiff, Dr. A. T. Sherman, was called to treat the defendant, Geo. E. Burton, for an injury to his knee, the result of a collision between cars of the Detroit United Railway. Subsequently the doctor and his patient entered into the following written contract.

"Detroit, Mich., March 14, 1906.

"I, George E. Burton, of the city of Detroit do hereby agree as follows with Dr. A. T. Sherman of the same place. I will pay to the said Dr. A. T. Sherman for professional services, one-third of any sum which I may receive from the Detroit United Railway, as damages, arising out of an injury to me on said D. U. R., December 7, 1905. And I further agree to pay to said Doctor Sherman the sum of ninety dollars (\$90) in addition to the above mentioned one-third if the amount received by me is two thousand or more dollars, that is, if the settlement is made out of court."

George E. Burton.

Later Burton, it appears, settled out of court with the railway company for \$1,800. He and Doctor Sherman had some difficulty in agreeing upon the settlement under their contract, which ended by the doctor bringing an action on the contract in which he claimed there was a certain amount still due him.

On the trial of the cause the testimony of Doctor Sherman and that of the defendant, Burton, his erstwhile patient, showed a remarkable degree of variance. The doctor insisted that it was Burton who conceived the idea of settling his doctor bill from a percentage of any amount in damages he might obtain from the railway company. That Burton proposed the contract, and that he (the doctor) objected to it, but finally upon the urging of Burton agreed to it.

When Burton took the witness stand, he was equally as positive that the contract was the child of the doctor's brain; testified that the doctor had remarked about what a good case he (Burton) had against the railway company, mentioning vague sums of money that could be obtained if the case was handled in such and such a way, and considerable more along the same line.

The court in reaching its conclusion made no apparent effort to reconcile the testimony of the parties; in fact, gave little weight to the evidence of either, basing its opinion upon the principle of law involved and the intentions of the parties as disclosed by the written contract. The court said:

"At the time the agreement was made, the parties contemplated that unless a settlement was made a suit would be instituted against the Railway Company and the agreement expressly provided that, if the matter was settled out of court for \$2,000 or over, the plaintiff should receive \$90 in addition to one-third of the amount received. The amount which the defendant could obtain from the Railway Company must depend principally upon the nature, extent, and character of his injuries, to be determined by the testimony of experts like the plaintiff, and in no small degree by their opinions, incapable of conclusive refutation before a jury of non-experts. We think it necessarily

follows from the circumstances of the case as disclosed by the plaintiff and the agreement that the parties contemplated that the plaintiff should be a witness in case of suit and should give a history of, and opinion upon the case in the event of a proposed settlement. The plaintiff's interest in the amount of damages furnished a powerful motive for exaggeration, misrepresentation, —temptation to swell the damages so likely to color his testimony as to be inimical to the pure administration of justice, and therefore invalid." Holding that the physician could not recover under the contract, as it was invalid, for the reasons stated above.

The ruling in this case is in accord with the rule enunciated in a long line of similar cases that precede it. And, too, in every one of these cases the identical question arose, i. e., the question relative to the part the attending physician was expected to play as a witness in the prosecution of the contemplated damage suit, out of which his fee was in a measure dependent.

In none of these cases does it appear that the physician agreed to, or did, give anything but true testimony; there is an entire absence of fraud, collusion, or attempt to "fix" the testimony; yet contracts of this kind have been uniformly held invalid. These opinions have been quite generally based upon the probable effect the existence of a contract of this nature would tend to have upon the testimony of an attending physician at the trial of the cause.

It appears reasonable to suppose that a contract of this kind would be valid were it hedged about in such a manner as to show plainly that nowhere along the line was it contemplated that the attending physician should act as a witness, or participate in any manner in the negotiations between the injured party and the prospective damage payer.

But a case in accord with the above hypothesis has not, to the writer's knowledge, been brought before the courts, and, when the intimate relationship existing between physician and patient is considered, along with the usual method employed in the ap-

proximation of damages for a personal injury, it appears extremely improbable that there ever will be one.

Comments

BY THE PRODIGAL
THE OFFENDERS

The tonsils and the teeth
They causeth man much grief
From infancy to age
They do his time engage
With the doctor and the dentist
Until he's non compos mentis.
From the cradle to the grave
He intermitting doth rave
Until tonsilless, and toothless
The doctor Oh! so ruthless
Hath plucked organs from him useless;
In strained fact and truthness
Forever to remain
Immune to grief and pain?

The practice of medicine is as erratic in its caprice as the fashions are in wearing apparel. The tonsils and the teeth are the offenders more frequently in these latter days than the appendix, together with the uterus and its adnexa. They are the little foxes (teeth and tonsils) that eat off life's tendrils and destroy the vitamins.

I am not an agnostic in the profession and have an abiding faith in the merit of rational medicine and surgery.

I believe that human beings should wear clothes for the protection of their bodies and that the clothes should be fashionably decent to the extent of not shocking sensible modesty.

Fashions in medicine should be confined to the protection and conservation and the continuous normal functioning of the organs of the human body and all extra pruning should be avoided.

There are pathological conditions where teeth and tonsils should be removed; but their promiscuous removal is dead wrong. And while it will eventually reflect on the wrong doer the profession as a whole has to bear the burden of the crime. This is one of the reasons why Christian Science (so

called) and isms are increasing in numbers so rapidly and the burden carried by the medical profession is so heavy.

The world war proved the strength and merit of genuine medicine and surgery and went a long way in fixing in the mind of the profession its inerrancy and its assured unhampered future. But there were too many mistakes made to confirm the former belief and its leadership and prestige depends upon its merit in the ever present. This merit is in each man in the profession "doing what he can, where he is and doing it now" in eliminating in his own mind the bigness of the stovetid (\$) as compared with the smallness of a tooth or tonsil. And also to root himself deeper in the alluvial soil of knowledge so that he may be able to differentiate what *is*, from what appears to be, for the cure of the patient and the growth of his medical soul.

The purely mercenary motive in us being eliminated or held in abeyance there would not be such a large number of our patients cured by isms, whom we solemnly assured could get well only by removing a section of their person.

Not many generations ago the trend of medical thought was that there existed an intimate relationship between the tonsils and the reproductive organs. That a complete removal of both tonsils in children prevented development of the testicles and ovaries and tended to subdue the animal passions similar to that of the ox or horse or that of an eunuch. In these latter days it is said that diseased tonsils and teeth prevent the growth and development of the body and generative organs suffer accordingly.

There is evidence that organs equally remote have a direct or sympathetic helping agreement with each other, a kind of vicarious functional working basis and it is not beyond the possible, that a relationship or a sympathetic consanguinity may be discovered between tonsil and testicle.

We have been so busy removing the effect that our energy has become exhausted and the cause of diseased teeth and tonsils

and the secondary or remote effect of their removing has been pushed aside for further generations to find out.

POSITIVE SPECIAL REFLEXES

During the spring of 1888 a boy, 7 years old, was brought to me who had severe paroxysms of coughing that medicine failed to relieve. The cough was getting worse. A case for the rhinolaryngologist. The cough was worse at night particularly after midnight.

On making an examination of the nose, throat and pharynx I could find no abnormal conditions. The congestion of the mucous membrane was accounted for by the cough. Inspired by my ignorance and helplessness in the case and with no scientific thought in mind and to gain time (I suppose) I asked the mother if the boy had phimosis explaining the meaning of the word. She did not know, but said "you examine him and see." Examination showed a pretty case of phimosis. I directed her to her physician-surgeon and he did a circumcision the same day and the cough ceased.

The same year a boy three years old, suffering from ear ache, of three months duration, was brought to me from Rossville, Kan. He cried out with pain, particularly at nights, throwing his head from side to side. Examination showed some redness of the drumhead but no more than the medicine they had poured into his ear caused. The previous experience was not forgotten and an examination was made and an almost complete phymosis was found. Circumcision cured the ear ache.

The two Topeka surgeons who operated will recall these cases should they read these reports.

During my almost forty years in medicine, these are the only cases of special disease reflex trouble caused by phymosis that I can affirm.

There is no other one remedy more certain to relieve or cure enuresis, where caused by irritation in the neck of the bladder than belladonna. The tincture, fluid extract or atropia are preferable in the order given.

Children tolerate large doses. Parents should be told of the toxic symptoms and should they present to withhold the medicine until the symptoms pass off and begin again with a less dose. The symptoms will soon pass off and there is no danger to life if the directions are followed. The treatment usually needs be continued a month (the medicine given at bed hour) to establish normalency.

R

SOCIETIES

Barton County Society

At our November meeting, the Barton County Medical society gave to its members and their wives or sweethearts a turkey dinner, served at the residence of Dr. E. E. Morrison, Great Bend.

There were about fifty present including the invited guests. Dr. Dillon, of Larned, contributed to the evening's enjoyment by singing some of his Scotch songs.

Everybody seemed to enjoy the evening and many expressed the wish that they might come oftener.

Our regular monthly meeting was held December 17th and the following officers were elected for the coming year.

President, Dr. W. C. Zugg, Great Bend; Vice president, Dr. Frank Lightfoot, Great Bend; Sec'y and Treas., Dr. B. S. Pennington, Hoisington. Delegate to State meeting, Dr. Button, Great Bend.

B. S. Pennington, Sec'y.

McPherson County Society

The McPherson county medical society met December 9th instead of the following Tuesday, the regular date.

Dr. Loveland assisted by Dr. Cox of the State Board Tubercular Division held a Tuberculosis Clinic in the afternoon and addressed the County Society in the evening.

The afternoon clinic was well attended and satisfactory in every way. It was appreciated by the physicians who gave hearty cooperation. Doctors Loveland and Cox were assisted by Misses Mikel and Bolt, nurses of the T. B. Division and Misses

Wain and McKinney of the Red Cross Division of McPherson county.

The county society meeting was the first meeting to be held in our new \$175,000 County Hospital which is just about ready for occupancy. We were fortunate in having with us, besides the Topeka doctors, Dr. Klippel, State President and Dr. G. A. Blasdel, Councilor for the 5th District, both of Hutchinson. Dr. Klippel in his excellent address majored the two features—cooperation in professional work and sociability in our get-together meetings.

Dr. Blasdel gave a good strong talk on organization—a 100 per cent membership and cooperation. He carried a good point with his address.

Dr. Loveland gave a very fine talk on the clinic held in the evening, tuberculosis in general and emphasizing particularly incipient tuberculosis. He contends that we hardly have a right to make a negative diagnosis the first time a patient comes to us with history or symptoms referable to the chest. He made a strong plea for the cooperation of the profession in all public health problems. We owe a duty to the public in contributing our skill and efforts more intensely along these lines.

He was followed by Dr. Cox who gave a forceful talk on Preventive Medicine and advocated the full time County Health Officers.

The Dental profession of the city was represented and took part in the discussions on oral infections.

Following the meeting refreshments were enjoyed at the Jefferson Tea Rooms.

Clinton R. Lytle, Sec'y.

Borbon County Society

The Borbon County Medical Society met in regular session Nov. 15, with thirteen members in attendance.

This was the first meeting for some time on account of summer vacation and that the doctors had been busy with their routine work.

Dr. Hopper reported two cases of eye injuries that had recently occurred in his

practice outlining his methods of dealing with the conditions presented.

The prevailing epidemic of diphtheria was discussed by all present and it was the general opinion that more stringent methods be taken with all contacts that the disease be eradicated.

A number of cases were reported that had only the clinical symptoms and appearance of tonsillitis but in which the bacillus of diphtheria was found after culturing smears, and making microscopical examination.

The proneness of the laity to attribute all sequelae to the action of antitoxin and not to the disease was brought out in the discussion, and the necessity for the doctor impressing upon his patrons that antitoxin had no injurious after effects, and that its sole role was that of a "life saver" when given early and in sufficient dosage.

It was agreed that at the next meeting a banquet be served at the Hotel Goodlander to which the wives of the members be invited.

Drs. Young and Jarrett were appointed a committee on program and arrangement for the banquet and their being in charge leads us to anticipate something more than the usual "run for our money" on that occasion.

John C. Lardner, Sec.

R

Anderson County Society.

The following officers were elected Dec. 22, 1920, for the Anderson County Medical Society, for the year 1921.

President, H. M. Barnes, M. D., Colony, Kansas.

V. P., T. A. Hood, M. D., Garnett, Kansas.
Secretary, J. A. Milligan, M. D., Garnett, Kansas.

Treasurer, A. J. Turner, M. D., Garnett, Kansas.

Delegate, C. B. Harris, M. D., Garnett, Kansas.

Very truly,

J. A. Milligan,
Secretary.

Shawnee County Medical Society

At the regular annual meeting of the Shawnee County Medical Society, held Mon-

day evening, December Sixth, at Pelletier's tearoom, the following officers were elected:

A. K. Owen, President.

M. G. Sloo, Vice President.

L. H. Munn, Treasurer.

E. G. Brown, Secretary.

C. F. Menninger, Member Board of Censors.

After the business meeting a banquet was held for the doctors and their wives.

E. G. Brown,
Secretary.

Cowley County Society

The December meeting of the Cowley County Medical Society was held at Arkansas City, Dec. 16th. It has been the practice of this Society to hold the annual banquet at this time and this year it was served at the Osage Hotel which has recently been opened. The ladies were invited and plates were served for fifty. Instead of the usual program of "Toasts" following the banquet the committee arranged a musical program which was greatly enjoyed. An orchestra furnished music for a dance which followed the musical. Preceding the banquet a short business session was held and the following officers were elected for the year 1921.

President, C. R. Spain, Arkansas City.

Vice-Pres., R. W. James, Winfield.

Sec'y-Treas., C. C. Hawke, Winfield.

The annual report of the Sec'y. for the year 1920 shows that there were 50 members of the society and that all but two of the eligible men of the county are members. Nine meetings were held as the organization does not hold meetings during the three summer months. Sixteen papers were presented and twenty men took part in the programs. The average attendance at the regular meetings was twenty. The next meeting will be held at Winfield, January twentieth. The Society meets on the third Thursday of each month at 8 p. m. alternating between Winfield and Arkansas City. Meetings are held in the Commercial Club rooms of these cities and the members will

be glad to welcome any physicians who might be able to attend.

C. C. Hawke, M. D.,
Secretary.

Harvey County Society

The Harvey County Medical Society met at the office of Dr. L. T. Smith, in Newton, Kansas, after dining at the Auditorium Cafe.

The Secretary's report for the year shows thirty-four paid-up members, and some money in the treasury. Meetings are held monthly and are usually well attended. Officers were elected for 1921 as follows: President, H. M. Glover; Vice-President, L. T. Smith; Sec-Treas., Frank L. Abbey; Censor, R. H. Hertztler; Delegate, Jno. L. Grove. Dr. Edw. H. Skinner of Kansas City, gave an interesting and instructive paper on "Enlarged Thymus," using a lantern for illustrations. The paper emphasized the importance of X-ray examinations of the mediastinum and chest in young children before undertaking tonsillectomies and general anaesthesias. In spite of bad weather and roads there was an attendance of twenty at the meeting.

Frank L. Abby,
Secretary Harvey County Med. Society.

Rice County Medical Society

The annual meeting of the Rice County Medical Society was held in the hospital parlors at Lyons on Dec. 30 at 7:30 p. m. The following were present: Drs. Walker, Muir, McBride, Fisher, McCrea, Schmidt, Vermillion, Wallace, Currie, Ross, and Doctors G. A. Blasdel and H. E. Blasdel of Hutchinson.

Different members present reported clinical cases of interest.

Dr. G. A. Blasdel gave a talk as Councilor, complimenting our Society for some of its aggressive work against quackery and making some suggestions for our future. Dr. Blasdel then gave a very interesting talk on syphilis and its present day treatment which was followed by questions and discussion.

Dr. H. E. Blasdel was asked to tell something of Washington University School of

Medicine of St. Louis which he did giving some interesting information about the school and its equipment and work.

Miss Brayton of the Hospital gave some piano selections which were enjoyed by those present. All present then repaired to the hospital dining room where oysters with various accompaniments were enjoyed.

Election of officers for the coming year resulted as follows: President, Dr. A. W. Schmidt, Lyons; Vice Pres., Dr. W. E. Currie, Sterling; Sec-Treas., Dr. H. R. Ross, Sterling; Censor, 3 years, Dr. P. P. Trueheart, Sterling. To read paper before State Society, Dr. H. R. Ross, Sterling.

The resolutions recently published in each of the county papers relating to chiropractors and osteopaths were informally discussed.

After finishing routine business society adjourned to meet in Lyons the last Thursday in January.

H. R. Ross,
Secretary.

RESOLUTIONS OF THE RICE COUNTY MEDICAL SOCIETY

Resolved, that it is the consensus of opinion of The Rice County Medical Society, that it is unethical and unprofessional for any member of this society to work or counsel with an osteopath or chiropractor.

That the secretary be instructed to send a copy of these resolutions to ethical physicians and surgeons in neighboring counties, and that he request their publication in each of the county papers, together with an article in the Journal of the American Medical Association, which follows:

In Butte, Montana, recently there was a convention of "chiropractors." This august assembly was addressed by one of its shining lights—Mr. Palmer, of Davenport, Iowa, "The Fountain Head of Chiropractic." To the local newspapers Mr. Palmer explained:

"Our school back at Davenport is established on a business and not a professional basis," Mr. Palmer said. "It is a business where we manufacture chiropractors. They have got to work just like machinery. A course of salesmanship goes along with their training. We teach them the idea and then we show them how to sell it."

Commendably frank! They do work like machinery; from the eyebrows down. The

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ELIXIR ENZYMES is a palatable preparation of the proteolytic and curdling ferments that act in acid medium. It is recommended as an aid to digestion and as a gastric tonic generally.

Elixir of Enzymes is of special service in correcting faulty proteid metabolism which is one of the principal causes of autointoxication.

Elixir of Enzymes is an excellent adjuvant and vehicle for exhibiting iodids, bromids, salicylates and other drugs that disturb the digestive functions. One dram of Elixir Enzymes will carry 46 grains of potassium iodid or 45 grains of sodium salicylate or 17 grains of potassium bromid.

Elixir of Enzymes contains the curdling ferment and may be used for making junket or curds and whey. Add one teaspoonful of the Elixir to half pint of lukewarm milk, stir thoroughly and let stand till cool.

For minimizing the organic disturbances and eliminating the corrosive effect of potassium iodid on the mucous membrane of the stomach as well as disguising the taste, the following combination is recommended:

Potassium Iodid. 2 ounces.

Distilled water, enough to make two fluid ounces.

To exhibit, for instance, 20 grains of potassium iodid three times daily. use one teaspoonful of Elixir of Enzymes, one teaspoonful of the above solution to half pint of lukewarm milk; stir thoroughly and let stand until cool. Take one-third of this quality as a dose. This junket should be made up fresh every morning.

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Very truly yours,

S. S. GLASSCOCK, M.D., Res. Supt.

A. L. LUDWICK, A.M., M.D., Asst. Supt.

EDITH GLASSCOCK, B.S.

Business Manager

Office 910 Rialto Bldg., Kansas City, Mo.

Journal has always held that "chiropractic" is a trade and not a profession. Mr. Palmer's admission makes it unanimous.

Douglas County Medical Society

Newly elected officers of the Douglas County Medical Society:

C. F. Nelson, President.

H. L. Chambers, Vice President.

J. R. Bechtel, Secretary.

E. M. Owen, Treasurer.

H. T. Jones, Censor.

J. R. Bechtel, Secy.

Sumner County Society

The regular meeting of the Sumner County Medical Society was held in Wellington December 20. A Tuberculosis Clinic was held by Dr. Forest Loveland and Dr. Seth Cox of the State Tuberculosis Association. Fifty-seven persons were examined in twenty of whom active tuberculosis was found, in three arrested tuberculosis and suspected in eleven.

The following program was carried out:

Its prevention, H. G. Shelly.

Why change climate?, D. E. Kisecker.

Pre and Post War findings, J. C. Caldwell.

Laboratory man's standpoint, R. W. VanDeVenter.

Physical diagnosis and treatment, Forrest Loveland.

Discussion, everybody.

After the program the annual election resulted as follows: President, S. W. Spitler, Wellington; Vice-President, H. A. Vincent, Wellington; Censor, J. C. Caldwell, Wellington; Secretary-Treasurer, T. H. Jamieson, Wellington.

Dr. A. R. Burgess was admitted to membership.

T. H. Jamieson, Secretary.

Coffey County Society

The doctors and dentists of Coffey County met in a joint session on December 14 at Burlington and after a banquet at the Hotel Riverside the Coffey County Medical Society was reorganized. Before the World War this society was an active one, but on account

of the large number of medical men in service the meetings were discontinued. It is intended that from this time regular quarterly meetings will be held.

The following officers were elected: President, J. C. Fear, Waverly; Vice-President, M. L. Stockton, Gridley; Secretary, A. B. McConnell, Burlington; Treasurer, G. R. Norris, Burlington. At the reorganization the following men were present: Drs. Salisbury, Norris, Manson, Herring, Gray, Kent, Sanders, McConnell. The next meeting will be held in Burlington on March 28.

A. B. McConnell, Sec'y.

—B—

COMMITTEES

The following committees have been appointed by the President of the Kansas Medical Society:

Committee on Public Policy and Legislation

Dr. J. T. Axtell, Newton.

Dr. W. S. Lindsay, Topeka.

Dr. C. S. Huffman, Topeka.

Dr. C. Klippel, President ex-officio, Hutchinson.

Dr. J. F. Hassig, Secretary ex-officio, Kansas City.

Committee on Public Health and Education

Dr. L. L. Uhls, Overland Park.

Dr. W. D. Basham, Wichita.

Dr. Karl Menninger, Topeka.

Dr. M. L. Perry, Topeka.

Dr. O. D. Walker, Salina.

Dr. S. J. Crumbine, Topeka.

Dr. C. R. Lowdermilk, Galena.

Committee on Scientific Work

Dr. G. A. Blasdel, Hutchinson.

Dr. M. T. Sudler, Lawrence.

Dr. J. F. Hassig, Kansas City.

Committee on Necrology

Dr. E. E. Liggett, Oswego.

Dr. J. F. Hassig, Kansas City.

W. E. McVey, Topeka.

Committee on School of Medicine

Dr. Millard F. Jarrett, Ft. Scott.

Dr. L. W. Baxter, Columbus.

Dr. J. J. Brownlee, Hutchinson.

Dr. E. C. Morgan, Clay Center.

Dr. Elmer E. Morrison, Great Bend.

Committee on Hospital Survey

Dr. G. M. Gray, Kansas City.

Dr. L. D. Mabie, Kansas City.
Dr. R. B. Stewart, Topeka.

Committee on Medical History

Dr. W. S. Lindsay, Topeka.
Dr. W. E. McVey, Topeka.
Dr. W. S. Harvey, Salina.

C. & C. Bureau

Every week shows a little more interest in the Bureau. In order that this work may be made the success it should be made every member of the society must take advantage of its facilities. You must not expect the Bureau only to help you, but you must help the Bureau to help others. It must be a co-operative system. The man who refuses to pay Dr. A. will most likely also refuse to pay you. In sending in your accouts, give the name in full if possible, the occupation if known or can be learned, the correct address or the last known address.


The Bureau would like to have the present addresses of the following. If you can aid in locating any of these parties you will be helping the Bureau, helping yourselves and will probably be doing a favor to the parties themselves.

Present Addresses wanted for the following.

Last known address

Balthus, Lewis,.....St. John, Kans.
Ballinger, Chas.....Topeka, Kans.
Betterton, C. C.....709 Van Buren, Topeka, Kans.
Boring, Levi,....St. Paul, Kans., or Fredonia, Kans.
Boring, Mike,....St. Paul, Kans., or Fredonia, Kans.
Carrell, Mr. Luther.....Chanute, Kans.
Dail, C. D....323 Railway Exchange, Kans. City, Mo.
Day, Henry T.....Hutchinson, Kans.
Dice, Miss,.....1921 Lural St., Topeka, Kans.
Dodson, Ben.....Arkansas City, Kans.
Donahue, Pat.Mayetta, Kans.
Duigman, F. C....13th & Yecker, Kansas City, Kans.
Duigman, J. C....13th & Yecker, Kansas City, Kans.
Eames, E. E.....Frankfort, Kans.
Edwards, Williams.Hartford, Kans.
Eldridge, Mr. E. E.Los Angeles, Calif.
Freel Mr. Alx.....Maple Hill, Kans.
Erisson, E. G....839 Minn. Ave., Kansas City, Kans.
Hughes, Joseph.Reading, Kans.
Johnson, Fred. . 127 West 1st St., Hutchinson, Kans.
Kelly, John, . . . 116 Monroe St., Topeka, Kans.
Large, Mrs. E. M. 1425 Central Ave., Topeka, Kans.
Livingston, C. . . Hutchinson, or Scott City, Kans.
McCord, Arthur. . .Americus, Kans.
Martin, Miss Francis Topeka, Kas., care D. E. Rose
Trunk Co.
Murrell Miss Madeline.....Chanute, Kans.
O'Brien, Francis, 1215 Kan. Ave. Topeka, Kans. or
2921 Norledge Plase, Kans. City, Mo.
Powell, Mrs. John, Kan. City, Kan. 2417 LaFayette.

Trimmer, Mrs.....1734 Lincoln St., Topeka, Kans.
Schroeder, Mrs....312 East 6th St., Topeka, Kans.
Van Horn, Mrs. Addie,...Topeka, Kans., R. No. 3.



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An independent authority—the Chicago Laboratory—reports the phenol coefficient of B & B Surgeon's Soap to be 51.98. Complete report sent on request.

A one per-cent lather corresponds in bactericidal strength with a 50 per cent solution of carbolic acid. So its germicidal power is unquestionable.

One cake represents the germicidal power of six pounds of carbolic acid, or about 15 gallons of a 5 per cent solution.

B & B Surgeon's Soap contains one per cent mercuric iodide, which has 5000 times the germicidal power of carbolic acid.

It is the only type of cake soap which can properly be called germicidal. That

means more than "antiseptic," more than "disinfectant." It means the power to kill germs.

If a soap contains 5 per cent carbolic acid, a one-per-cent lather represents a dilution of 1 to 2000. That is far below germicidal efficiency. Cresol is also reduced too low.

B & B Surgeon's Soap is truly germicidal, with lather formed in the usual way. Contact with the skin for a few minutes makes it doubly sure.

The cake is convenient. It cannot break as a bottle of liquid might. It has lasting qualities and can always be relied upon.

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THE JOURNAL

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No. 2

Cesarean Section Under Local Anesthesia; Report of Three Cases

W. E. MOWERY M. D., Salina

Read before the Kansas Medical Society at Hutchinson,
Kansas, May, 1920.

In this hour of modern surgery, it is perhaps a trifle tame to present a paper on local anesthesia.

Without any attempt to go into the uses and abuses of this method, I wish to direct your attention to its application in a field of surgery, in which, while it has been advocated and used by some surgeons, its full benefits have not been realized by the majority of the profession. That is in cesarean section.

Regardless of the idealistic manner for selecting the proper time and preparation of our cases, the surgeon in this section of the country, meets and will for some time continue to meet his casarean sections as a necessity demanding immediate relief. When first seen these cases are too often not only unprepared but are neglected, infected and exhausted from hours of unsuccessful efforts at delivery. The burden of blame does not always rest with the attending physician, neither is he free from responsibility. If we will but impress upon our minds that procrastination and meddling is the thief of time in these cases, we will save many lives and much suffering.

Without dictating when or by what route cesarean section should be done, let us consider the advantages and disadvantages when we are confronted with the necessities of this operation.

The advantages are: First. It is free from danger, for both mother and child. Second. There is no post-operative nausea and vomiting, the abdominal muscles remain quiet, consequently the mother is decidedly more comfortable. Third.

Shock is absolutely prevented. Fourth. Acidosis, fatty degeneration, post-operative, pneumonia and paralytic ileus are not produced or even approached. Therefore the patient's resistance is reserved and the effects of any infection which may have been introduced during or preceding operation are greatly reduced. Fifth. There is no danger of producing cerebral hemorrhage or emboli. Sixth. In complicated cases which are already taxing the patient's resistance to its capacity as; renal insufficiency with albumin, casts, and high blood pressure, profuse hemorrhage, organic heart disease, chronic infection, exophthalmic goiter, etc., in which inhalation anesthesia is decidedly hazardous if not absolutely prohibitive, local anesthesia is used with safety—the patient returning from the operating room without any perceptible change in her general condition.

The disadvantages are few. There may be a little pain while the uterus is being delivered, but not as much during the entire operation as is occasioned by one good labor pain. The time required is a trifle longer, but the condition of the patient remains the same throughout the operation, and time is not a factor, as the entire operation seldom requires over 25 or 30 minutes. Perhaps the most objectionable feature is the dread the patient or her relatives may have of an operation while conscious. A little properly directed persuasion will usually overcome this. Now if in local anesthesia we have a method comparatively free from objections, whereby we can safely operate desperate cases, why then is it not logical to extend its application and advocate a more general use of this improved method? In the following case reports I hope to show some of its practical applications.

Case No. 1: Mrs. E. S.; age 20, housewife;

primipara, no miscarriage; normal weight 180 pounds. Entered hospital July 7th, 1919. Family history negative. Personal history: She has had the diseases of childhood, including scarlet fever. No other illness. Menstruation regular, 28 day type, no pain. Last menstruation October 25th, 1918. She was well during the first six months of her pregnancy, but during the 7th month she began to suffer from dyspnea, nausea and swelling of the hands, face and feet. For the last four weeks her eyesight has gradually failed and one week ago she became almost totally blind, being only able to distinguish an object when held close to her eyes, but unable to perceive the outlines at all. On July 7th she consulted her physician for the first time. Physical examination shows a well developed plethoric patient, with marked edema of the hands, face and feet. Her blood pressure is 260 systolic and 120 diastolic. The heart, lungs and reflexes are normal. There is slight twitching of the facial muscles. Ophthalmoscopy shows a marked albuminuric retinitis. The foetal heart is audible. There is no servical dilatation, the os is rigid. The urine is loaded with albumin, epithelial, granular, and hyaline casts. Diacetic acid and acetone are present. There are 4,300,000 red and 7,000 white cells. Hemoglobin 80 per cent. Coagulation time is normal.

Alkalies, hot packs, and elimination were tried without benefit. July 12th, Cesarean section was done under local anesthesia. Morphine $\frac{1}{4}$ gr. was given forty-five minutes before operation. Novocaine 0.5 per cent was used by infiltration method. The uterus was not injected and no pain experienced when it was incised. The trans-peritoneal route was employed and a seven pound child was delivered. The child was in good condition and no restoration was needed as is frequently required with inhalation anesthesia. The mother complained of pain when the gravid uterus was delivered through the abdominal incision, but otherwise the operation was absolutely painless. The mother's post-operative condition was very comfortable and otherwise uneventful. Her urine rapidly became normal and while the eyesight improved considerably, it was still greatly impaired when I last heard from her six months after her operation.

Case No. 2: Mrs. D. D.; age 32, housewife, primipara. One miscarriage. Normal weight, 140 pounds. First seen January 9th, 1920. Family history: father died of carcinoma, mother died of apoplexy. Personal history: Diseases of childhood, malaria at twelve, tonsillitis at fourteen, followed by a light attack of rheumatism; menstruation regular, some pain; last menstruation July 3rd, 1919. She did not menstruate in June, but in July she flowed freely and passed some clots, and had more pain than usual at menstrual period. For the next few weeks she was fairly comfortable. Twelve weeks ago she noticed her feet were swelling and the last nine weeks she has had epistaxis every day, usually quite freely. Seven weeks ago she was put to bed, under the care of a nurse; she remained in bed five weeks. Her chart shows that she ran a temperature every day. The temperature was very irregular, ranging from 97.3-5 to 103. She had no pain but was nervous and unable to rest and had been given a little morphine nearly every day. Physical examination shows a frail, anemic patient with waxy complexion who bears the ear marks of being very sick. Petechial spots are seen over the neck, chest, abdomen, limbs, upon the soles of the feet and in palms of the hands. She has no pain or tenderness. The lungs are clear, reflexes are normal. Blood pressure 130 systolic and 90 diastolic. The heart is enlarged with a soft systolic murmur. Eyes are normal. Tonsils are small and no evidence of disease. The spleen is slightly enlarged. The liver extends three fingers below the costal border. X-ray examination shows the teeth to be normal. The urine shows a few casts and a trace of albumin. There is no bile, but a trace of diacetic acid and of acetone are found. It might be noted that the urine findings were not constant, as many of the daily examinations showed practically a normal urine. Widal, Wassermann and blood culture is negative. The blood contains 2,100,000 red and 8,000 white cells. There are no nucleated reds and only a few distorted red cells are seen. Coagulation time is fifteen minutes. Hemoglobin is 30 per cent. Stool examination is negative. The foetal heart is not heard. January 15th, she was given a blood transfusion of 350 cc. by the syringe method. This reduced

her coagulation time to eight minutes. She had no more nose bleed. January 17th cesarean section with technique as described in case was done and a three and one-half pound child was delivered which lived twelve hours. The mother suffered no pain during or following the operation. Her general condition apparently was not disturbed in any way by the operation. She had a pulse of 92 before entering the operating room, and 90 when returned to her bed. Owing to the profuse epistaxis she had been having I was fearful of hemorrhage, but fortunately the bleeding was no greater than is normal in such cases, which was unquestionably due to the transfusion.

The post-operative course was extremely satisfactory, but her general condition did not improve. She was given a transfusion of 300 cc. of blood on January 23 and 1055 cc. on February 12. She gradually grew worse, and on March 13 suddenly became unconscious with a right sided hemiplegia and died March 15. Post mortem examination showed malignant endocarditis with vegetation on the heart valves and infarcts in the spleen. No cultures were obtained as the body had been embalmed before consent for post mortem was granted.

Case No. 3: Mrs. D.; age 41, housewife, normal weight 212 pounds, multipara eight, all living; one miscarriage at five months, one year ago. Family history negative, except one sister died of child birth. Personal history: Diseases of childhood and an attack of muscular rheumatism five years ago, menstruation regular, no pain. Entered hospital on January 8, 1919. She is now eight months pregnant. For the last four months she has complained of dimness of vision. Her hands, face and feet have been swollen for the last two months. Four weeks ago she became almost totally blind, she had suffered from headache, nausea and vomiting since the onset of her blindness. Physical examination shows a large plethoric patient whose skin is comparatively clear. Her blood pressure is 210 systolic and 140 diastolic. Her lungs, heart and reflexes are normal and there is no muscular twitching. Ophthalmoscopy shows a well marked retinitis. She is unable to count fingers at all, her urine is loaded with albumin, hyaline, granular and epithelial casts. There is a trace of blood and some pus in her

urine. Diacetic acid and acetone are present. She has 5,600,000 red cells and 7,500 white. Her hemoglobin is 90 per cent and coagulation is normal. She was given the benefit of elimination and alkaline treatment without any improvement, and on January 12, cesarean section as described in two previous case reports was performed and a four and one-half pound child was delivered. The operation was conducted without pain and the mother's condition remained the same through the entire operation. Her post-operative condition was comfortable and much better than is expected in cesarean section cases. A report from her ten days ago states that her eyesight is still greatly impaired. The child was underdeveloped and poorly nourished and little hopes were entertained for its survival. However, it gained rapidly and is still a living evidence in favor of this improved method. While my methods may be open to criticism, they were done in what we think was the best interest of the mother and child, and the results speak for themselves, as they are in harmony with the results obtained by other surgeons whose reports I have read of cesarean section under local anesthesia.

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Poliomyelitis

E. O. EBRIGHT, M. D., Wichita

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

My purpose in presenting a paper before this society, on the subject announced, is not the usual one of the orthopedist. I do not purpose to discuss the chronic stage of definite deformities or permanent paralyses, nor to deal with that phase of the subject that gives us our opportunity of appearing in the spectacular role of operative surgeons. I am not attempting to minimize the beneficial results that have come from our tendon transplants, our forcible correction of deformities or our muscle re-education work. These are greatly worth while and have saved many victims of this baffling disease and have made them self-supporting and valuable members of society.

As much as we are interested in this phase of the disease, we feel that by far a greater service may be rendered in urging a treatment of the acute stage of the disease that will pre-

vent many of the deformities and permanent paralyses. This seems to me very important. We are likely at any time to have an epidemic of polio, and if any plan of treatment will save some of these children from the results that have usually followed, it should be known by the men who first see the cases. Even though no epidemic occur, there are enough sporadic cases happening in Kansas every year, to make it very important that we understand the pathology and the correct treatment.

In a paper read before the American Medical Association in 1917, I laid particular emphasis on the motor cell rest theory in the treatment of the disease in the acute stage and indicated how this might be accomplished. What was then a theory, though as I believed based on the pathology, in my experience, has ceased to be mere theory and is abundantly proven and the treatment justified by results that have followed since that time.

Poliomyelitis, or infantile paralysis is a specific, infectious, contagious disease occurring generally in the summer and attacking young children. The predominating symptom in a large majority of the cases is a motor paralysis coming on rather suddenly, after a brief intestinal disturbance, with fever, pain in the back and opisthotonos. The paralysis is at its maximum very soon after the beginning of the attack. However, there are several features about the disease that make our nomenclature faulty. *Anterior poliomyelitis* is not entirely indicative of the pathology because the posterior horn of the cord is affected as well as the anterior. *Anterior-polio-myelitis* meets with the same objection in that the white matter is affected as well as the gray matter, though not so severely or so permanently. *Anterior-polio-myelitis* does not properly describe the condition in a small per cent of the cases for the brain is affected as well as the cord.

Infantile paralysis fails to properly describe a certain per cent of the cases for adults are attacked as well as infants, and finally, *infantile paralysis* is faulty for the reason that a large number of cases show all the preliminary symptoms of the disease, such as fever, intestinal disturbance, pain, opisthotonos, increased cell count in the spinal fluid, and yet never show any paralysis. However, for the average case,

anterior poliomyelitis is probably as good a name as can be had, for the disease is essentially a hemorrhagic myelitis, chiefly attacking the motor cells in the anterior horn of the cord, and producing a motor paralysis that may vary from a very mild to a very severe type. It is of this class of cases that we wish to particularly call your attention.

The disease has four stages, the acute, sub-acute, convalescent and chronic.

The acute stage extends from the beginning of the attack to the time when the cells that have been disabled by effusion have recovered. This is at about the end of the fourth week.

The sub-acute stage is from the end of the acute stage to that time the cells slightly disabled by hemorrhage have recovered. This extends to about the end of the fourth month.

The convalescent stage begins at this time and extends to the time when the cells that have been disabled by severe hemorrhage recover. This is generally considered to about the end of the second year.

The chronic stage extends from this time on and is the period of permanent paralyses, that occur as a result of the cells entirely destroyed by hemorrhage or toxemia. The muscles receiving their enervation through nerve fibers coming from these motor cells are, of course, permanently paralyzed. This division of the disease corresponds with the pathology and with the clinical course. After the third or fourth week the pathology is all cleaned up except the disabled motor cells in the anterior horn, that are either affected by slight or severe hemorrhage or permanently destroyed by toxemia. Here then comes our *motor cell rest* theory. These cells are diseased and unable to function. The obvious effect to be desired is complete rest of these cells. This is accomplished by inhibiting all the afferent impulses from entering the posterior horn of the cord and being transmitted through the reflex arc to the diseased motor cells in the anterior horn. This then instead of electricity, massage, or stimulation of any kind, means rest of all the body that might originate afferent impulses. The cells that are disabled by effusion will start to function so soon as the effusion is cleared up. Attempts to hurry their action can only produce one result, namely a more serious disability. The same

holds good in the cells disabled by slight hemorrhage. In general then, *motor cell rest* in the acute and sub-acute states means arrest of all stimuli that enter into the posterior horn of the cord. This is accomplished by as complete an immobilization of the entire body in plaster paris, as is possible, and keeping the patient in a quiet, dark room with careful attention to diet and excretion. The effect of the paralysis on every joint should be understood and the affected members put in the position that will give rest to the muscles involved. The foot should be put in an inverted, dorsally flexed position, emembering the greater strength of the calf muscles over the muscles of the anterior part of the ankle joint, and protecting the anterior tibial muscle. The knees should be straight. The legs should be slightly abducted and rotated in to protect the weaker internal rotation of the hip. It should always be remembered that a paralyzed muscle will not regain its tone if it is continually stretched. This then is the theory. Practically this method of treatment has given me very gratifying results. Particularly in the case of paralyzed shoulders. I have been amazed at the recovery of the deltoids in cases that in the light of our past experience have been considered almost hopeless. In the case of joints where the flexors are much stronger than the extensors, or vice versa, when they have been put in a position to protect the weaker set of muscles, it often has been found when taken out of the cast, that these muscles supposed to be seriously affected, have recovered their tone, proving them to be either cases of muscle fatigue or prompt recovery from paralysis following the *motor cell rest*. Only a small per cent of our motor cells are destroyed as a result of toxemia or hemorrhage, and yet we have been having permanent paralyses follow in a much larger per cent. What does this mean? It means simply that by allowing afferent impulses to be poured into the posterior horn of the cord through the sensory nerves, we are asking a disabled cell to functionate when it needs complete rest; it means that we are not giving nature a fair chance. We treat no other diseased part of the body in such a manner, why should we follow such a course in the case of these very delicate motor cells. Hence, it follows, that in the acute and

sub-acute stages of the disease, massage, electricity, passive motion, rubbing, stimulation from the periphery by whatever method should be prohibited and the entire body so far as is practicable, put in a state of complete rest. We mean by all this that all stimulation of diseased motor cells should be intrinsic rather than extrinsic. This treatment by immobilization is not so difficult as it might seem and instead of being irksome to the child, on the contrary, is very agreeable. It is marvelous how the pain and restlessness will cease with the entire body completely immobilized in plaster. This should be done as soon as the diagnosis can be made. Whatever the distribution of the paralysis or members involved, the entire body should be encased, as the reflex act is very complex and motor cell fncion of any cell may follow not only afferent impulses originating from that particular part of the body involved, but from afferent stimuli from any part of the body. Thus if one leg only is paralyzed, it is not sufficient to put that leg in plaster, leaving the rest of the body free to originate primary impulses that through the reflex arc may cause a response in the mtor cells supplying the affected part, but the entire body should be immobilized.

No medicines have any specific effect on the course of the disease. No operations of any kind are indicated until after a period of two years.

There has been much uncertainty and speculation in regard to this terrible disease. Certain points such as the specific organism; the point of entrance of the infection, still remain to be certainly demonstrated, but in the early stages, no one thing is so abundantly proven as the beneficial results that follow the treatment based on the attempt to produce rest of the diseased motor cells.

To briefly recapitulate:

Early diagnosis, complete immobilization of the body, protection of the affected muscles by the position that will prevent muscle strain, the avoidance of any peripheral stimulation that through the reflex arc will cause the diseased cells to attempt to function. These are the important points to remember in our treatment of the disease in the early stages.

To those wondering that nothing has been

said of muscle training, tendon transplantation or the correction of deformities, let me say that these very valuable procedures belong to the treatment of the convalescent and chronic stages of the disease. To me the necessity for bringing to attention what I conceived to be the correct treatment of the early stage seems imperative. Every day I am told that a case will be referred to me when the time to operate arrives. The sole purpose of this paper is to insist that there is much to be done for these children in the early stage. As we see it the highest privilege of the orthopedist, as well as the internist, the surgeon, the neurologist and all of us is the prevention of deformity and permanent paralysis rather than the correction once they have occurred. If I can get you to grasp this theory of motor cell rest and put in practice the plan of treatment indicated, I feel certain you will become as enthusiastic over it as I have been.

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Melancholy and Melancholia

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Kansas.

Read before the Clay County Medical Society at Clay
Center, Kansas, December 5, 1920

"One swallow does not make a summer." Nor does one cough prove a pneumonia. Skin rashes are not necessarily measles, and jaundice is not always of gall-stones. Even the laity knows now that not all fevers are typhoid and that not all chills are malaria. *The distinction between symptom and syndrome* is one which requires no emphasis in the field of general medicine.

In the field of mental diseases, however, there is nothing like the same familiarity with this distinction. Even the doctors rarely appreciate the fact that melancholy is *not* the same as melancholia, that fits are *not* the same as epilepsy, that hysterics does *not* mean the same as hysteria, that delusions are *not* characteristic of any one form of mental sickness. As a matter of fact these distinctions were not made until long after the delimitation of entities in general medicine. There is a great mass of matter dealing with the history of psychiatry, from the time that all mental diseases were regarded as of one kind, simply "Insanity", through various

classifications with three, a dozen, a hundred, even a thousand sub-groups, back to the modern scheme of a useful and scientific grouping into twelve main forms. These I have previously presented in this journal.

How important it is to find names for certain groups of symptoms ought to require no defense. We all know how much practical advantage has been achieved by the correct recognizing and naming of the group of symptoms we now call (the syndromes) diphtheria, diabetes, syphilis, meningitis, etc. When we compare the modern conceptions of these diseases with the old time conceptions betrayed by such symptomatic descriptive names as "the fever," "croup", "sweet water," "spotted fever," etc., we realize the tremendous importance of giving names to groups of symptoms which really constitute entities, or syndromes.

The same is true in mental disease. It took years of sad experience and many mistakes to learn that all fits are not epilepsy, that not all paresis is general paresis, that not all melancholy is melancholia, etc. We have learned our lesson, at last, however, or I should better say we are learning it, and we know now that there ARE certain diseases characterized by certain symptoms. We have given them names, oftentimes similar to the name of the most conspicuous symptom.

MELANCHOLIA

Melancholia is one of these diseases (syndromes). Melancholy is a symptom, a state of emotional depression, sadness, mournfulness, dejection. But melancholia is a syndrome, a group of symptoms; it is a form of mental trouble in which melancholy is a very conspicuous symptom. In addition to depression of spirits, however, there are other well defined symptoms. We look not only for an exaggerated over-response of the emotions (depression) but for a depression or diminution in the thinking power and also in the doing power. In technical terms we refer to these as "retardation" or "hypokinesia", or "volitional inactivity". On the other hand the field of perception is generally left almost intact so that there are no hallucinations, illusions, etc.

In addition to these mental symptoms there are usually certain physical symptoms such as

a sub-normal temperature, imperfect assimilation of food, sluggish reflexes, anemia, etc.

All of this analysis will be more readily visualized by the presentation of an actual case:

Case No. K213 is an unmarried woman of 40. Her family history was of the best. She was a woman of means and consequently her past life was not one of hardship. Except for a previous attack some twelve years ago, in which symptoms were very much like the present, there were no facts of importance.

For four years she had been a constant companion of her invalid mother, to whom she was very faithful, and whom she served in every capacity. About a year before she was brought to us her sister had detected trouble. She "had that far-away look, and seemed like she wanted to tell me something, but would start and couldn't do it; acted like she wanted to cry". She complained of great fatigue, and consulted the doctor (J. B. S.) who told the relatives it would take but little to bring on another of her attacks of depression.

During the winter she manifested more peculiarities. She sat by mother reading Bible incessantly, usually such passages as dealt with being cast into the pit, outer darkness, etc. She had crying spells, of long duration and trivial cause; sat by mother on a little chair and moped; began to eat very little, grew very thin, and let her bowels go for days at a time without a passage. She began to be extremely economical; wouldn't eat because it cost too much, thought her sister extravagant for cooking so much, etc. Insisted they were all enroute to the poor house; wouldn't divide expenses with sister any more; wanted to sell all mother's property and live in one room, etc.

February 8th, 1920, her only brother died of influenza. After this she was worse than ever. Began to cry more. Told her sister she was going to lose her mind, go crazy, be taken away, go to hell, etc. Said God had cursed her, wouldn't hear her prayers, wouldn't forgive her, etc. Couldn't find God, had sinned so much she couldn't be forgiven; had committed the unpardonable sin, etc.

For the past seven weeks she has been particularly bad. Has gone long periods without food, has quit menstruating, threatened suicide, cries incessantly, mopes much, speaks slowly

and as little as possible; has been suspicious of people; won't let her relatives touch her "because you don't any of you like me".

She was in a wretched physical state, having eaten nothing for several weeks. She refused to eat, and had to be fed through a tube passed through her nose for several weeks. A complete physical examination could not be made because of her restiveness. There was albuminuria and a slight anemia. Reflexes were sluggish. Other physical and laboratory findings were negative.

This patient represents a typical case of this disease "melancholia." Here we see not only the emotional depression but also an intellectual depression so great that she has nothing to say, although she is perfectly aware of what goes on. She has almost no ideas, only that the world is a terrible place and that she would like to die. Her motor activity also is so depressed that she will not eat, she will not even go to the bathroom. (Some of these patients refrain from having bowel movements for a week, and longer.)

Compare this case, which may be kept in mind as a typical example of melancholia, with the following cases of

MELANCHOLY BUT NOT MELANCHOLIA

Case 1.* Swend Johnson was a well known and successful carpenter in a Maine village. During his 44th year, he rather suddenly became very melancholy. He gave up his work and sought seclusion. In some way which was never ascertained, he wandered clear down to Boston, where he was found in this way:

The doctor was called to the hospital at 3 o'clock one cold March morning. Waiting to be admitted sat a dejected man clad only in wet shoes, gray trousers (containing \$4.00), a white bartender's jacket, and a dripping hat. The police said he had attempted suicide by jumping into a lake.

This the patient admitted, rocking back and forth in his agitation, declaring that he deserved to die, that he had committed the unpardonable sin (a very common delusion in melancholia) and was unspeakably blue.

The next morning he was still depressed,

* Footnote: This case was one studied by my friend, Dr. Lawson G. Lowrey, Assistant Professor of Psychiatry at the University of Iowa, and kindly furnished me by him.

sat about the ward in quiet dejection, and spoke only in a low voice. He still wanted to die, but had forgotten his attempt at suicide of the day before.

Thus far this case is precisely of the sort described above as typical of melancholia. Neurological examination soon showed, however, that *brain syphilis* ("general paresis") was probably the correct diagnosis (he had fixed pupils and exaggerated knee-jerks) and the laboratory findings confirmed this. *Had this case been misdiagnosed and treated as one of melancholia, all chance of recovery would have been lost.*

Case 2. A farmer of 52 volunteered for service in the German army, and was put in charge of a drinking-water still. He had never been ill nor was there any nervous or mental disease in his family. He was much under shell-fire with no serious ill effects.

December 14, 1914, a young comrade, a volunteer, wanted to clean his dirty kettle at the drinking-water still. The farmer later described this volunteer as a young fellow "like milk and blood" (as we might say, "like peaches and cream") and as the handsomest young man he had ever seen in the war. The rules forbade such use of the still, and young "milk-and-blood" was told to go down to the brook, and then come back and get the distilled water. The young man complied, but while at the brook he was shot and killed in full sight of the farmer.

The farmer grew much excited and trembled all over. Thereafter he could not eat nor sleep; he reproached himself, although he knew he had acted quite correctly; wished he had been in the place of this comrade; and had suicidal thoughts. He was deeply depressed, wept easily, and showed manual tremor. Steiner terms the farmer's account of the person of the deceased "reactive idealization." After a week there was considerable improvement. B. was sent back to work, which he felt would be beneficial. He was put in less dangerous surroundings, and this also had a good effect. (Southard, E. E., *Shell-Shock and Neuropsychiatry*, p. 468.)

Here, then, is another depression sounding very much like the first case except that it is not recorded in such detail. Melancholy is

the outstanding symptom. But this again is not a case of melancholia. This is a case of what is called "Reactive Depression", and belongs in the group of *psychoneuroses*. In fact this is a good example of what was called "Shell-Shock" in the war, which is regarded as a condition in which the emotional response of the patient is not equal to the situation which he has to face.

It is by no means the same as melancholia (for many reasons), and one of the most important deductions from this is that it should be treated in an entirely different way if recovery is to be expected.

Case No. 3 K 186.*

Professor J. P. is only a young man of 26, although he holds a college chair. The family history is very bad, (as it is apt to be in melancholia). This man's father committed suicide and was also said to have been a drug addict. His brothers and sisters were "nervous", his grandmother insane. His father's brother was said to have had a mental trouble and was in a sanitarium.

This man came saying that for nine years he had been subject to blue spells coming at irregular intervals. He had enlisted during the war and at the conclusion of it had secured a good college position. Eight months previously he had had an unhappy love affair and since that time had been depressed, worried much, eaten very little, slept very little and was considered by everybody as extremely "nervous." People in the house where he stayed were alarmed about him and perhaps even afraid of him. He was so depressed that he feared he was losing his mind and had thought of committing suicide.

Here, now, one would think the symptoms typical of melancholia. As a matter of fact the mental symptoms are like those of melancholia, but no mental examination is complete without a physical examination to go with it.

This man was found to perspire profusely, to show much psychomotor unrest, to have a marked tremor of his hands, to have a pulse of one hundred even after lying down ten or fifteen minutes, and to have a tremulous tongue. In addition to this he had some sugar in the urine.

* This case was referred to me by Dr. J. D. Colt of Manhattan, Kansas

These findings left little doubt but that we were dealing with a case of *hyperthyroidism*. Mental symptoms of this sort frequently go with these diseases and are quite distinct from melancholia. Under treatment for the hyperthyroidism he was able to be discharged in less than two weeks.

Case No. 4. A man of 29, whose family history was negative, came to us because of a depression which had followed influenza. He had been in the army base hospital and after his discharge was very sad, felt unable to do any work and one day attempted suicide by turning on the gas. He had very little to say, spent most of his time sitting about doing nothing except to lament his fate.

This, again, would look like a case of melancholia. But examination shows that the intelligence test rates him as only nine years old mentally. Moreover when we look back over his history we find that he left school at the age of fifteen, having gotten only as far as the fourth grade. We also find that the most he ever made was \$3.25 a day. These facts make us absolutely sure that the boy was feeble-minded and this depression following influenza should probably be regarded as a symptom of that *feeble-mindedness* rather than the symptom of another mental disease added to it.

Case 5. Rosa was forty-three years old and had always been healthy. Influenza, which seemed to cause many people to have more or less depression, caused her to be "nervous", and she seemed fearful after her attack. She complained a great deal of various pains and became more and more depressed and worried about herself. She said that she was sick, that she thought she would die, that she wished she would, that her heart was bad, that she could not sleep.

Her physical examination showed nothing in particular of importance and as a matter of fact this woman was considered by one mental specialist as a case of melancholia. Six other mental specialists saw her, however, and thought differently. A week or so later she died and an autopsy showed that she had had an *encephalitis*, an inflammation of the brain that is in no way connected with the disease melancholia. Conse-

quently the one psychiatrist was wrong, and so were all the rest.

Case No. 6. A housewife was brought to us who was very depressed, so much so that she would scarcely explain what she was sad about. It seemed that her husband had mistreated her somewhat and she thought that he no longer loved her and might even kill her. She wept and moaned and wrung her hands, and altogether presented a very pitiful picture.

At first she, too, looked like a case of melancholia. She got better as cases of melancholia are apt to do, and we lost sight of her for a while. A few months later she was brought back, now claiming that her husband had really tried to kill her, that they were trying to get her money, that he had poisoned her, that people were doing wicked things to her, etc. These are symptoms of a group of diseases called *paranoid psychoses* (mental troubles), and which again have nothing to do with melancholia.

Case 7.* Mr. John A. is 70 years old. About five years ago he lost his wife, under circumstances which made it seem as if he were partly to blame, in that he thought he neglected the proper medical help at the proper time. He became tremendously upset by this and grieved night and day. No one could comfort him. He took no interest in anything, and gave up all concern about his farm, his folks and his affairs. All day long he would sit in his room reading or staring out the window. He could be persuaded to come to meals but ate sparingly.

When spoken to he would respond with a series of groans, laments and exclamations.

"Oh, dear, oh, dear; my God, how I suffer; why do you ask me that? You know how I feel; I feel awful, terrible. If I could only die! My burden is greater than I can bear. Oh, Oh."

Or again he would say: "Why do you bother me? I can never get well. I have sinned and I must pay. Oh, my God! what a life! Why do you torture me? Why do you let them treat me this way? Oh, dear, dear, dear, dear."

Again this sounds like a case of melancholia. There is a type of melancholia in which the patients are so distressed that it is called agitated depression. One might think this was such a case as that, or one might think it was simply an exaggerated reaction of sorrow over

his wife's death. As a matter of fact it is probably neither, but a case of mental disease dependent upon an aging brain, a senile psychosis. These are sometimes called 'senile dementia' because the loss of memory and of thinking power is usually so prominent; but there are other considerations too numerous and technical to discuss here.

The above seven cases show that melancholy may occur, looking very much like the case of melancholia, yet upon analysis proving to be entirely different. We could cite numerous other cases in which melancholy was a symptom of brain tumor, or of epilepsy, or of locomotor ataxia, or of heart disease, yet which, upon first sight, might have been thought to be melancholia. How, then, shall we recognize melancholia? What are the points to be sought, and what is the procedure to be followed?

DIAGNOSIS

It is probably impractical for the average man in general practice to attempt to make a diagnosis of melancholia, collecting the details of examination which only the specialist has the time or the experience and the facilities to make. In the first place it requires an investigation of the *family history* in rather great detail because true melancholia has a tendency to be hereditary. In the second place we have to investigate the *past history* of the patient, the story of his life medically, socially, maritally and economically. There are many effects here which are obviously important in determining the nature as well as the cause of a depression. Thirdly, we must get a detailed and accurate account of the onset and development of the *symptoms* shown by the patient at present. Oftentimes the relatives cover up the most important symptoms with the result that without the experience of many similar cases the doctor does not know what to ask.

These facts learned, one has next to make a thorough *physical examination*. There are many physical diseases of which the patient may be unaware which cause mental symptoms similar to those in melancholia. With this a *neurological examination* should be made, including all the reflexes, examination of cerebral nerves.

Laboratory tests must then be made. Not only must the urine be examined, but the renal function test should be made; not only should the blood cells be counted, but the Wassermann test should be made and the percentage of blood-sugar present should be estimated. In almost every case it is advisable to examine the spinal fluid. *We are absolutely sure that some cases of brain syphilis cannot be recognized in any other way.*

Last of these technical procedures, comes the *mental examination*, which is, of course, what the mental specialist is best prepared to do, but which is only a part of the examination. He goes into the emotional reactions, intellectual reactions, perceptual reactions and the volitional reactions. He tests memory, orientation, impressibility, associations, etc. From this he draws certain conclusions to be considered with the other data.

When all these data are in there is yet much help to be secured in many cases from an x-ray examination of the head or a dental examination. The eye specialist again often helps and the ear specialist is often needed. These, however, give only special data, and might be considered luxuries; whereas the preceding tests are all necessities.

These diagnostic procedures may be listed in a column, thus:

SUMMARY

1. Family history. (Heredity.)
2. Past history. (Environment.)
3. Present illness. (Symptoms.)
4. Physical examination. (Signs.)
5. Neurological examination.
6. Laboratory examinations.
7. Mental examination.
8. Psychological tests. (Special.)
9. X-ray examination.
10. Eye, ear, and other special examinations.

This, then, is the technique through which the competent mental specialist will carry his patient of doubtful diagnosis, and not until all this is done has any man a full right to say that any particular melancholy is or is not a case of melancholia.

Why, then, is it important to say that this is, or this is not, a case of melancholia? It is im-

* This case was referred to me by Dr. C. C. Stillman, of Morganville, Kansas.

portant for three reasons. First, cases of melancholia have a certain definite prognosis, to which the relatives are entitled, and for which the relatives are usually very anxious. They want to know what to expect. Most cases of melancholia get well, but, on the other hand, cases of melancholia have recurrences of their attacks. All this the relatives ought to be told so that they can fashion their lives and the life of the patient to fit the prognostic probabilities.

Secondly, there is a definite treatment for melancholia which is not the same as the treatment of a depression on some other basis. To this treatment the patient is entitled, particularly so because of the fact that he is likely to recover and more likely if he has the benefit of the right treatment. This treatment is discussed below.

Thirdly, it is important because some other forms of mental disease which look like melancholia are much more serious and some are less serious and some should be treated at once with salvarsan and some should be treated at once for hysteria. To wrongly name these diseases is to lose the chance of helping the patient at the critical time.

TREATMENT

What is the treatment for melancholia? Briefly speaking these are the principles of treatment:

First: *the patient must be isolated*. Nothing detracts so much from the patient's chances of recovery as the presence of his relatives and loved ones. It is very hard for some relatives to see this. Nevertheless, probably the greatest benefits gotten from going to some hospitals springs from the fact that the patients are taken away from solicitous but unwise relatives. It is better to have no one see the patient except the nurse and the doctor.

Secondly: *absolute rest*. These patients are perfectly willing to go to bed in most cases and that is precisely what they should do because there is a great fatigue of mind and with it a great fatigue of body. Rest in bed, then, is an essential.

Thirdly: much benefit can be derived from the right sort of *psychotherapy*. This does not mean cheering the patient up. One of the worst things that relatives and family doctors

can do is to jolly or joke with a patient in an effort to cheer him up, as they think. It only makes the patient the more convinced that no one understands his misery. The right kind of psychotherapy is a rather hard treatment to apply. It varies with the case. Sometimes it consists in showing the patient how to get better control of himself and better control of the situation. Often it is best done by explaining simply to the patient the fact that his viewpoint is distorted by the existence of his mental disease and that he has a mental disease from which he is likely to recover, improbable as it may seem to him.

Hydrotherapy is usually of great advantage. The patients may be submerged in prolonged baths at a constant temperature of 96 to 97 degrees for periods of several hours. My patients appreciate this part of the treatment as much if not more than anything else I do for them. Cold and warm packs for from one to two hours, especially in the agitated forms of depression. Other minor applications of hydrotherapy are of benefit if applied by an expert. Much of the value of hydrotherapy and massage depends upon the technique with which it is administered.

Fifth: *Massage* aids in the treatment because it aids in physical reconstruction and also because of its sedative and stimulating effect.

In addition to these general principles one should remember to *force foods* even to the point of using tube feeding if necessary and to *force fluids* in an effort to dilute toxins and aid in elimination. Alimentary elimination, too, should be pushed. As the patient grows better he may be given some *occupational training* and gradually taught the resumption of the activities practiced by him before the acquisition of his disease. It is highly important that this form of treatment not be given too soon. The so-called work cure is no cure for melancholia; it is only an aggravation.

One word should be said against the pernicious custom of sending these patients on long trips as a form of treatment. Travel always makes them worse and a doctor has no better means of making himself disliked and distrusted forever than in an effort to get rid of a patient, advising him to take a trip to California. It

is important to speak slowly to these patients because they do not catch ideas rapidly. It is wise not to say too much. It is still wiser to listen patiently and sympathetically. It is extremely important to always be truthful and to remember the adage that "If one cannot tell the truth it is better to tell nothing."

Lastly because it is most important I mention the matter of *preventing suicide*. The one most important point to remember about the depressed case, whether he is a true case of melancholia or not, is to remember that these people want to die and that they will take any means fair or foul to bring this about. There are hosts of cases every year in the United States where the relatives have been told this possibility and where they have pooh-pooh'd the idea, thinking that their loved one was too sensible to do this, where an unexpected and wholly preventable suicide followed. Within the past few weeks one of my doctor friends was telling me that a certain patient in his town ought to come and see me, but would not come because his relatives said he was nearly normal. (He had been melancholic.) Three days ago the associated press sent a dispatch over the wires which I saw, that this man had cut his throat with a razor. These cases are all about us and this danger is ever present. No doctor has discharged his full duty without impressing the terrible seriousness of this fact upon the relatives. A melancholy patient is always potentially suicidal, even when he seems to be almost well!

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The Sanatorium Treatment of Pulmonary Tuberculosis

DR. JAMES A. MILLIGAN, Garnett

Read at the Decatur—Norton County Medical Society

The sanatorium treatment of tuberculosis is probably so well known to the physicians that it would seem superfluous to read a paper on this subject before a body of medical men. However, there are some points in every subject, that, at times, become a mooted question in the minds of different individuals, therefore it is along this line that I want to confine this paper.

The first essential in the sanatorium treatment

is to receive into the institution individuals that can be benefitted by such treatment. It is as useless to receive persons who have passed to a stage of this disease in which they cannot be improved as it would be to send to the surgeon an inoperable case of cancer, in which all of the glands of the body were involved from infection, or to call a surgeon to amputate a limb when a gangrenous condition had extended to the trunk. It is an axiom that when a body has reached a moribund condition, death is the only relief; this is also true in tuberculosis.

To avoid receiving into the State Sanatorium, persons who have passed to the stage when relief is not possible, the superintendent and members of the Advisory Commission have prepared a booklet on the condition of this disease, in which we believe that relief is probable; and also conditions in which the sanatorium treatment will not give relief in this disease.

This booklet has been sent to each health officer in the state to guide him in making a diagnosis and prognosis in each individual examined.

If the examiner will carefully carry out these suggestions in his examinations and report the findings to the superintendent, there will be very few applicants received who will not get some measure of relief at the sanatorium.

However, the great majority of those applicants given a preliminary examination, will be rejected, as they have passed to the stage to which relief is not possible. This is due to two causes. First, the applicant will not believe or admit that he has tuberculosis during the incipient stage. Second, if he admits he has tuberculosis, he believes that his physical condition is such that he can overcome the disease by hard work in the open air.

The theory and practice in the treatment of the tuberculous at the State Sanatorium is rest, nutrition, sanitation, fresh air and sunshine, and a contented and happy state of mind.

The first of these, rest, is the most essential to the patient entering the sanatorium, for the reason that the applicant has made a strenuous effort through exercise to overcome the disease. It therefore becomes necessary to give the patient a long period of absolute rest to overcome the bad effect of exercise, and restore

energy which is so necessary in a constructive metabolism.

The question of rest and exercise in the early years of sanatorium treatment was debatable among physicians, one class of physicians contending that a certain amount of exercise was necessary to create energy and constructive metabolism; while the other class maintained that energy was restored more satisfactorily by absolute rest for a period. In late years the latter idea has proven to be correct by the statistics of all sanatoria.

The question of rest is the strong point in sanatorium treatment as against home treatment.

The other essentials, diet, sanitation, fresh air and sunshine, might be reasonably well carried out in many homes, but rest, never. Why? The great majority of tuberculous people have that active, ambitious, hopeful mental and physical temperament which will exercise unless placed under restraint.

The diet is the second most important feature in the sanatorium treatment, as it is upon food that we depend for repair and replacement of the broken down tissue of the body; as we have prescribed rest for energy and constructive metabolism, now we must prescribe nourishment to supply that increased demand of constructive metabolism.

This is frequently one of the perplexing duties to the physician in charge—for the patient frequently has that peculiar, delicate and capricious appetite so common to tuberculous persons, and had indulged that appetite to all of the delicacies from "Bevo" to "Zwieback," to such an extent that he cannot be satisfied with wholesome and nutritious food. It therefore requires considerable tact on the part of the nurse to persuade him that milk, eggs, meat, vegetables, butter, etc., comprise the proper diet.

Milk and eggs as nourishment for the tuberculous has probably done more to relieve malnutrition and malassimilation than all other foods combined, and, if we consider their chemical composition, we find that milk and eggs carry a greater number of elements necessary to tissue building than any other kind of food.

The diet of the tuberculous cannot be confined to any one, two or three kinds of food for a great length of time, as their capricious appetite will rebel, and then the patient will lose

more than he has gained by the one kind of highly nutritious diet. Rice is very nutritious food for the tuberculous. It carries a greater per cent of starch than any other cereal, yet it is a very digestible form of starch and can be given with positive assurance that it will be assimilated. However, almost all other amylaceous and saccharine foods are very hard to assimilate and should not be given in the early treatment of tuberculosis.

When improvement in the patient is well along, he should have a variety of foods, and the only restrictions necessary should be the quantity of any one kind of food. Meats, vegetables, saccharine foods may be added to the diet sparingly after improvement; but their effect on digestion should be observed very closely for acidity and pyrosis, two conditions that do more to destroy digestion and assimilation than almost any cause that can be mentioned.

The weight of the patient should be taken frequently without giving the patient the privilege of seeing the scale weight, as a great many times the weight will be less than the previous weight; then the patient becomes discouraged, thinking they are not improving. However, we find this variation of weight in persons who are in prime condition. If the patient is receiving sufficient food and is otherwise improving, the weight should show a substantial increase from month to month.

Fresh air and sunshine is another of the useful essentials in the sanatorium treatment of tuberculosis. The fresh air to cool and soothe the diseased lung, and oxygenate and invigorate the entire body. The sunshine to drive away melancholy, destroy germs, to create oxygen, and to make the whole landscape to brighten and blossom as a rose. However, we see so much of these elements in this state that we do not fully appreciate their value. But what does it mean to the tuberculous? A hopeful mind, ambition for the future, an inspiration for recovery. A sanatorium without sunshine would be like death in a dungeon.

The next essential in sanatorium treatment is the superintendent, physicians and nurses. They should be of a temperament that inspires confidence in the patient. They should have that kindly, sympathetic disposition along with firmness so indispensable for managing others. They

should remember that the sanatorium is not a prison or mad house to which the patients are sentenced by law; but that each comes to the institution voluntarily and can leave at his pleasure. The tuberculosis patient is usually very hopeful, looking on the bright side of life; however, there are times when the most hopeful disposition will become despondent and melancholy.

Then the superintendent or nurse with a warm heart, kindly temperament—who feels for other's woes—becomes of great service to that patient by a friendly assurance of a better day, will drive away the mist and let sunshine into the mind and heart of the patient. A sanatorium is not the place for an indolent grouchy and unsympathetic officer or employee.

The Kansas State Sanatorium for Tuberculosis has been very fortunate in having a high personnel in its officers and employees, and we hope that the institution may continue to maintain that high standard.

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A Preliminary Consideration of Endocrinopathy as Related to Some Diseases of Obscure Etiology

F. A. CARMICHAEL, M. D.

From the Clinics of The Osawatomie State Hospital

The provocative consideration in the introduction of this topic for your review finds its inspiration in the prevailing spirited interest that is attending the study of internal secretory function as related to general metabolism. This, together with the activity now obtaining in the study of the factors considered in the variations of basic metabolism, is opening a new chamber of supplemental contemplation—a tremendous field for virgin research. We are disposed to look upon the hypotheses advanced in a given field with a certain measure of mental reservation, for we have been in the past impassioned perhaps over so many that have been relegated to the scientific discard at about the time our interest therein had become engrossed. While we are perhaps inclined to look upon the present activity in the study of these conditions as somewhat of an innovation—something entirely new, yet when we recall that the first studies in basic metabolism were undertaken 140 years ago we are brought face to face with the

fact that our progression in the medical field is not always forward, but that we experience definite cyclic trends which, as science demonstrates their validity and applicability to present morbid entities, necessitates our return with added interest and enthusiasm to original and abandoned theories. Today we are listening to learned and sagacious discussions in which such terms as "pluriglandular disease," "endocrine syndrome," "glandular dyscrasia," etc., are grouped in the most incongruous and bizarre forms. We are inculcated with the probable existence of vital factors associated with growth and development in early life, as well as retrogressive phenomena incidental to the decline of life, and influencing to some extent the epochal periods of development such as the establishment of the menstrual function and its physiological retrogression. We have come to realize that there is abundant proof adduced by careful and unbiased observation tending toward the establishment of a definite relationship between disturbances incidental to these agencies additional to endocrine secretory functions. The diversity of phenomena is at times confusing and yet it seems possible that a logical and adequately proven relationship exists with regard to insufficiency or disturbance of balance of function in these structures.

Several years ago it was my pleasure to present before your society a paper dealing with the possible implication of the endocrine system in mental abnormality. At that time the theory was a comparatively new one and the conclusions reached were presented to you with considerable timidity. Since that time, however, other observers, more fortunately situated with regard to laboratory co-operation than myself, have in a great measure confirmed the conclusions presented at that time.

The centralization of interest in the subject of the metabolic importance of the endocrine glandular system as related to growth and nutrition demands as a paramount exigency to the assimilation of the endocrine theory that it be supported by such anatomic and physiologic attestation as seems possible to adduce in relation to the physical and nervous factors concerned in stimulating or inhibiting or otherwise modifying functionation. That the growth

and development of the body itself, as well as its proper nutrition and harmonious function throughout life, is dependent upon the establishment of a proper balance of secretory function in these glands, whose potency and importance were not fully recognized or interpreted until within comparatively recent years, seems at the present time beyond reasonable controversy. A study, however, of the mechanism operative in the inco-ordinate functional harmony leads us to consider with a deeper degree of interest and the autonomous nervous mechanism made up of the sympathetic and parasympathetic systems, that unquestionably represent the elements concerned in the normal government of these processes. In this connection we are led to consider the sympathetic and the vagotonic systems as separate entities from a symptomatic standpoint, or a single essence with a functional duality, as the evidences of disturbed endocrine secretions particularly in reference to nervous disturbance are manifested either as vagotonia or sympathicotonia, either one of which may present a distinct syndrome, though not infrequently a combination of both may be observed in which both systems of innervation may be affected either in equal or varying degrees.

Recent physiologic studies have met with a hopeful advancement in demonstrating the method of operation with regard to these secretions, the results thereof leading to the conclusion that the activity of these glands is governed by the autonomic system and that the product of glandular activity sensitizes both the peripheral and the central nervous systems. With reference particularly to the adrenals we find the sympathetic nervous system affording the sensitizing stimulus—the clinical representation expressed in a clear group of symptoms denominated as sympathicotonia. These physiological experiments have demonstrated that individuals react differently as a result of peripheral sensitization of the vagotonic system. The more common manifestation, however, is indicated by disturbance of the vagus, motor oculi and the hypoglossae, the group of symptoms presented representing the vagotonia to which we find such frequent reference in recent literature, and it is at present held that in these cases the disturbance of endocrine function con-

cerns more particularly the thyroid and the thymus. That an individual may show evidences of vagotonia at one time and symptoms indicative of sympathetic nervous involvement at another may be accounted for on the basis of failure, not between the secretory structures themselves, but a deviation from the normal balance of the nervous mechanism that should be maintained between these two closely related, tho perhaps functionally different innervating mechanisms—and in various thyrotoxic states, particularly conditions dependent upon hyperfunction, the agency of the sympathetic system is clearly demonstrated and it is coming to be accepted as a fact that cases dependent upon hyperfunction of the thyroid present a variety of clinically different syndromes, each at the present time traceable to glandular disturbance instead of a single morbid entity characterized by a few symptoms heretofore regarded as classical.

With the characteristic zeal and enthusiasm with which all new or imagined discoveries in the medical field are greeted, our literature has been replete with a wealth of theory, conjectural and hypothetic, the postulation of various authors each working on a basis of insufficient physiologic experimentation. We have been confronted by a group of classifications and sub-classifications relating specifically to each of the ductless glands that has been extremely confusing, more particularly so in view of the fact that the symptomatology as advanced by one writer is frequently in controversion of that propounded by another. Before there has been established a definite syndrome unequivocally characteristic of a morbid entity attributable to disturbance of functionation of a single secreting structure, we have rushed headlong into an infinitude of minute and wholly imaginary sub-groupings. Thus in a classification of disorders of the hypophysis one author disposes of these primarily into hyperpituitarism and hypopituitarism; these again subdivided into lobar groupings, and these still again into

(1) Anterior Lobe Disorders.

(2) Posterior Lobe Disorders.

(3) Bilobar Disorders; each division being again subdivided into hypo-activity, hyperactivity and hetero-activity; these again still further divided into

(1) Pre adolescent,
 (2) Post adolescent, depending upon the age of incidence, and the final though not the ultimate division, namely:

(A) Aneoplastic,

(B) Neoplastic varieties. However interesting from the viewpoint of academic study this elaborate classification may appear it would seem that with our present knowledge we are able neither to attain this refinement of classification with reference to the hypophysis nor in connection with other glands to which internal secretory function is attributed.

Since Berthold called attention in 1849 to the probability of an internal secretory function in addition to the then known physiological function of various structures the researches of various observers have contributed materially to our understanding of the importance of these in association with body growth and development. Progress along this line, however, has been slow. Following Berthold's observation nothing of importance was developed until the studies of Bernard in 1855 who further elaborated Berthold's presentation and was followed by contributions of Brown-Sequard, Reverdia, Coker, Schaffer, Seidl and Dreyer. A definite classification of internal secretory disorders was undertaken by Bayliss in 1902, his researches being supplemented by the work of Clayton, Starling and others, and to these men may be attributed the application of the term "hormone" meaning an agency calculated to activate or to excite, which name has been indiscriminately applied to the product of internal glandular secretion since that time. In the various studies carried on and theories promulgated in reference to internal secretory function it seems adequately established that the function of these structures is so delicately and so closely co-ordinated that in their reciprocal action they are as often inhibitors as exciters. It would appear, therefore, that the term "autocoid", which embraces both the excitor and the inhibitor functions, would prove a more satisfactory terminology.

Our consideration of this subject being general in character a minute description of the various glands concerned is not essential. They may be briefly enumerated as the liver, pancreas, intestinal, thyroid, parathyroid, thymus, hypophysis, pineal and gonads. The nature of the secretions

of many of these is still a matter of conjecture; definite isolation of some glandular products have, however, resulted in the belief—perhaps well founded—that these substances are all crystalloid in character and are all definitely concerned in the process of metabolism. It is significant that some of these glands are active only in early life and undergo metaplastic changes on or before the incidence of puberty. So far as present investigation is concerned none of them take on a normal increased activity in the post developmental period of later life. Thus we find the thymus undergoing a progressive retrogression after the age of ten or twelve, while the pineal completes its decline at about the age of seven. It is quite possible that in reference to the latter the same conditions that are sometimes found in connection with the thymus obtain, and that its persistent secretory activity in the later periods of life result in definite disturbance of the delicately balanced interrelationship of this chain. While many of the specific symptoms set forth as characteristic, particularly of disturbance of function of the hypophysis, can be reasonably authenticated as relating entirely to the structure, it appears that the stress formerly laid on disturbance of sugar conversion is not particularly significant. In as much as the conversion of sugars plays such a prominent part in body metabolism, the failure of the body to properly assimilate and absorb these has formed one of the prevailing evidences upon which functional disturbance of the hypophysis is based but this anomaly occurs under such a protean variety of morbid conditions affecting other structures as well as the hypophysis that it may not be regarded as indicative of disturbance of this gland to the exclusion of other secretory structures that may be—and frequently are—actively concerned in this phenomena. The glycogenic function of the liver, as well as the muscle storage of glycogen, may well be considered as a probable source of liberated or improperly assimilated carbohydrates. The occurrence of glycosuria and hyperglycemia is alike common to pancreatic, adrenal and hypophyseal disturbance. Consequently as a single symptom relating to the function of any one of these glands its value is somewhat vitiated, particularly when it has been shown

that certain other intracranial disorders are capable of producing many of the symptoms previously attributed to the hypophysis. Both internal and external hydrocephalus, as well as certain types of chronic meningeal irritation, are capable of producing both glycosuria and hyperglycemia as well as other symptoms hitherto regarded as specific in relation to endocrine diseases. These factors have not been sufficiently considered in the postulates of the various authors who have given much valuable time and study to the subject. The definite interdependency and interrelationship of these glands as reciprocal structures, inhibiting or stimulating as the demands of metabolism betoken, has not been accorded that degree of contemplation which seems justified by their close association in harmonic activity.

I am brought to the conviction that by abandoning abstruse and prolix classifications more will be attained in definite scientific advancement from a division of symptoms into more simple groups, as practically all disturbances that may be legitimately attributed to any endocrine function fall naturally under the head of (A) Metabolic, (B) Nutritive; (C) Morphogenic; or some combination of these. At the present time the precise local pathogenesis primarily responsible for these changes has not been satisfactorily established. We find on the one hand that numerous cases presenting a very similar symptomatology have shown a wide variance in the pathological findings of the structures regarded as implicated and, on the other hand, widely varying symptoms have frequently shown pathologic changes in these structures that were strikingly similar. This leads to natural confusion and a fully justified doubt as to the correctness of some, or even any, of the hypotheses submitted up to the present time, and offers the provocation for the general comments submitted in this casual survey preliminary to a consideration of the effect of disturbance of metabolism due to secretory perversion in relation to possible significance as provocative factors in many cases of mental and nervous derangement.

For the purpose of rough classification and study I am submitting therefore the following grouping which it is fully conceded does not

in any sense represent all of the subdivisions into which the morbid variance, recognized as derangements of glandular secretion, may be grouped. The grouping however, is simplified as a basis for a proper conception only, of the possible relationship that may exist either singularly or in combination. It would seem at least as rationally supported as the more intricate grouping of other writers. It is my purpose therefore to group these under the following headings:

(A) Various glandular dyscrasias influencing the growth and development of the osseous structures. Under this heading may be placed dwarfism, giantism, achondroplasia, osteomalacia, the osseous acromegalic mal developments (prognathism, enlargement of distal phalanges, etc.), temporal bosses in leontiasis ossei, and perhaps the nutritional disturbances occurring in rickets.

(B) Morbid entities of systemic or hematopoietic type. Under this grouping we might include pernicious anemia, chronic nephritis, Addison's disease, hyperglycemia, leukemia and probably hypertension.

(C) Metabolic. Under this subdivision we may include achylia gastrica, glycosuria and other associated disorders.

(D) Central nervous system. Under this division may be reasonably grouped certain more or less intimately related disturbances commonly recognized as resultant upon thyrotoxic states, acromegalic mental degeneration, certain of the neuroses and possibly some of the psychoses of slow and gradual development and progressive course. To these may be added a long list of nervous conditions at present of unknown etiology, such as paralysis agitans and the peculiar morbid entity characterized as neuro circulatory asthenia. This grouping offers an unlimited field for discussion not only as to the implication or other wise of internal secretory function as etiological factors but also from the standpoint of analysis of the various symptomatic groups presented under the various headings, which are recognized as being as dissimilar as they are obscure in origin. Recognizing that subsequent consideration of this subject will be undertaken only in an attempt to correlate secretory disturbances with the particular field of our endeavor, i. e., nervous and mental ab-

normalities, a thorough discussion of the systemic and physical manifestations resultant upon perversion of secretory function is invited.

—R—

LAW FOR THE DOCTOR

LESLIE CHILDS

Physician's Right of Recovery for Emergency Service Rendered Unconscious Person

(Copyright 1919, by Leslie Childs.)

There are a number of cases in the reports in which it was attempted to hold the person summoning the physician to the aid of one suddenly stricken or injured responsible for the value of the physician's services. The holdings in these cases are far from uniform, but it is believed that the true principle, as enunciated in many of them, is that the person summoning the physician is, in the eyes of the law, the agent of the stricken or injured one, the reason given being that were this not so one would hesitate to call aid for a stranger, no matter how grievously injured, if by the act he were to be made financially liable for services rendered. Such a rule would tend to make men hard hearted, inhuman, and to stunt and stifle all the finer, humanitarian impulses valued by noble men and women the world over. The law has never pursued such a policy.

But cases wherein the physician has sought to hold the administrator of the estate of one to whom he rendered emergency service while unconscious are exceedingly rare. The case of *Cotnam vs. Wisdom*, 83 Ark. 601, is however, one of this kind and is interesting not only from a standpoint of fact, but of law as well. The facts, in so far as material to this discussion were as follows:

Mr. A. M. Harrison was seriously injured by being thrown from a street car, and the plaintiffs, being physicians and surgeons, were summoned to give him medical aid.

In the hope of saving Harrison's life, he being unconscious at the time, they performed an operation. The operation proved unsuccessful, the patient dying without regaining consciousness. Plaintiffs presented their bill to the administrator of the estate for the value of their services, and the administrator refused to allow the claim. Suit was then brought to enforce payment.

The administrator refused to allow and pay the claim on the ground that it could not be charged to Harrison's estate because there was no contract between Harrison and the plaintiff's either express or implied, the contention in part being set out in the following language:

"Harrison was never conscious after his head struck the pavement. He did not and could not, expressly or impliedly, assent to the action of the appellees (doctors.) He was without knowledge or will power. However merciful or benevolent may have been the intention of the appellees, a new rule of law, of contract by implication of law, will have to be established by this court in order to sustain the recovery."

In replying to this contention the Supreme Court in part said: "Appellant is right in saying that the recovery must be sustained by a contract by implication of law, but is not right in saying that it is a new rule of law, for such contracts are almost as old as the English system of jurisprudence. They are usually called 'implied contracts.' More properly they should be called 'quasi contracts' or 'constructive contracts.'" Then, quoting from the case of *Seeva vs. True*, 53 N. H. 627, continued: "That an insane person, an idiot, or a person utterly bereft of all sense and reason by a sudden stroke of accident or disease may be held in assumpsit for necessities furnished to him in good faith while in that unfortunate and helpless condition."

The court in effect held this case to fall within the above rule and that the plaintiffs were entitled to recover for the value of services rendered, holding that where a person had met with an accident that rendered him unconscious, and a physician was summoned, the physician could recover the value of the services on the ground of an implied contract.

In this particular case the plaintiffs obtained a judgment in the lower court. The Supreme Court refused to affirm this judgment on the grounds that certain evidence had been allowed to go to the jury touching the final distribution of Harrison's estate that was not relevant and was of a prejudicial nature.

The language used by the court, and the method of reporting the different steps in the procedure is not as clear as in some other re-

ports from the same jurisdiction, but the conclusions are in accord with the great weight of authority, and no doubt correct, and the probabilities are that this holding would be followed in a similar case in any other jurisdiction.

—R—

Mechanism of Shock and Exhaustion

GEORGE W. CRILE, Cleveland (*Journal A. M. A.*, Jan. 15, 1921) says that the man in acute shock or exhaustion is able to see danger, but lacks the normal muscular power to escape from it; his temperature may be subnormal, but he lacks the normal power to create heat° he understands words, but lacks the normal power of response. In other words, he is unable to transform potential into kinetic energy in the form of heat, motion and mental action, despite the fact that his vital organs are anatomically intact. His mental power fades to unconsciousness; his ability to create body heat is diminished until he approaches the state of the cold-blooded animal; the weakness of the voluntary muscles finally approaches that of sleep or anesthesia; the blood pressure falls to zero; most of the organs and tissues of the body lose their function. It is evident, therefore, that in exhaustion the organism has lost its self-mastery. Self-mastery is achieved only by the normal action of the master tissue—the brain. This subject is gone into at some length by Crile. He concludes finally, that the brain is an organ of intense metabolism. The brain cells may be conceived as having their protective and nutritive cytoplasm evolved to function at a distance. The energy-transforming function of the brain has such high selective value in the biologic sense as to confer a selective value also on the structure and function of the liver and of the blood; for if the brain cells thus stripped cannot transform energy fast enough to drive the muscles speedily enough to escape from the enemy, then the liver and the blood will perish as well as the brain. The more completely the liver and the blood and the lungs and the kidneys keep the brain cells free from the impairing by-products of their active metabolism, the cleaner pair of heels will the pursuing enemy see. The brain cannot work continuously, but a reversible process is necessary at regular intervals to restore it. This process in the higher centers is called sleep. The more intense the activation, the more needed is sleep. The brain is the only organ that sleeps conspicuously. Of great significance is the fact that the entire man spends one third of his time waiting for the brain to restore itself—to put itself again in the position of being able adaptively to transform potential into kinetic energy.

BELL MEMORIAL HOSPITAL CLINICS

Clinics of Damon Walshall, M. D.

CONGENITAL SYPHILIS

Case as reported at the Clinical and Pathological Conference, with discussions.

This case is being reported because of four unusual points:

First: A very interesting family history in which an apparently normal child was born while the father and mother were being given very intensive syphilitic treatment, and later, during the cessation of treatment, the patient was born, a typical active congenital syphilitic.

Second: The treatment of the patient, and also of the parents, although very intensive, was of no avail.

Third: The occurrence of an acute suppurative parotitis as a complication which no doubt was the index of the fatal termination.

Fourth: The presence of miliary gummata in the myocardium,—while the liver and spleen showed an absence of spirochetes, where in the average case of this clinical type, these organs are loaded with syphilitic organisms.

FAMILY HISTORY

Father: Age, twenty-nine years, living,—came to the Genito-urinary Clinic on February 28th, 1919, with genital sores, and a general adenopathy. No spirochetes could be demonstrated from the sores. The blood Wassermann at this time was 2+++. He left the clinic without treatment, and did not return until the—

Mother: Age thirty-nine, came to the Genito-urinary Clinic, May 5th, 1919, with a rash of two weeks duration and a sore throat. This was three months after the husband had been in the clinic with primaries. The blood Wassermann on the mother was four++++, as was the husband's also. At this time she was seven months pregnant, this being the third pregnancy for this marital union. Strenuous anti-syphilitic treatment was instituted, consisting of ten intravenous injections of 0.3 mg. of arsenobenzol; thirty rubs of mercury; and forty-five grains of potassium iodide, three times a day for a month, were given. On July eleventh, 1919, she showed some swelling of the feet, and as the period of gestation was nearing its close the anti-syphilitic

treatment was stopped. On July 20th 1919, after an apparently fullterm pregnancy, a normal looking baby girl was born, which is now one and one half years of age, and is still, as far as can be determined, in good health. There is no question but that this child was conceived before either the father or the mother were infected with syphilis, and having the mother under such strenuous treatment during pregnancy this child *may* not be infected. But, more probably, she is a latent congenital syphilitic, and we will not be surprised to have her show some active symptoms at puberty, or following some stress or strain of life.

1st Brother: (from the first pregnancy of this marital union,) died in infancy during an anaesthetic and operation for a circumcision.

2nd Brother: (from the second pregnancy of this union,) age four and a half years, is living and well. This mother had three children by a previous marriage, all of whom are living and well.

PAST HISTORY

The mother had her last anti-syphilitic treatment July 11th, 1919. The father had his last treatment October 15th, 1919, at which time his blood Wasserman was 2++.

The patient was conceived about March or April, of 1920, (some eight or nine months after the mother's last specific treatment,) and was carried through a questionable full-term pregnancy, and born November 4th, 1920. The labor was conducted by the Out-patient Obstetrical Department of the University, and the attending student described the labor as normal, except that the placenta was unusually large. The patient's condition at birth was not good, as it showed snuffles then, and scaling of the palms and soles.

PRESENT ILLNESS

The patient entered the hospital Nov. 19th, 1920, because of malnutrition. The breast milk had never been good, and the artificial food was being vomited.

Examination.—showed a very small, pale, emaciated, white baby, two weeks of age, with the facial expression of an old man, brow wrinkled, and marked snuffles.

Head.—showed both fontanelle and the sutures

open. No craniotables made out. Mouth, eyes, and ears apparently normal. There was a marked general *glandular* enlargement.

Heart.—normal.

Lungs.—clear throughout.

Abdomen.—slightly prominent, but not tense.

Liver.—palpable, 1.5 cm. below the costal margin.

Spleen.—very much enlarged and quite hard, and was felt 3 cm. below the costal margin.

Skin.—scaling of the palms and soles, with crusting of the anterior surface of the feet and hands.

LABORATORY FINDINGS

Nov. 22—Coagulation time, two minutes—

Blood Wassermann, 4++++

Blood count: Hgb. 45%—Reds, 2,160,000—Whites, 20,000.

Polymorphonuclears, 58; Large Lymphocytes, 5; Small Lymphocytes, 37.

Nov. 26—Hgb. 47%. Reds, 1,500,000—Whites, 20,000.

Nov. 27—Reds, 2,060,000. Polys. 49. Large Mononuclears, 9.

Large Lymphocytes, 23. Small Lymphocytes, 55. Transitional, 3. Eosinophiles, 5. Basophiles, 0.4. Myelocytes, 0.5.

Degenerators, 5.0.

The treatment consisted of:

1st.—50% Unguentum Hydrarg; daily rubs.

2nd.—Potassium Iodide. grains 15, daily.

3rd.—Arsenobenzol 0.025 mg. given intramuscularly on Nov. 22nd and 26th, and into the fascia lata on Nov. 29th, and Dec. 5th and 7th.

This was all absorbed without necrosis.

4th.—Citrated blood transfusions of 25.0 and 35.0 cc. respectively were given subcutaneously and intramuscularly on Nov. 22nd, and Dec. 3rd. Both of these were readily absorbed.

5th.—The feeding consisted of Eagle brand condensed milk, which he retained, and the stools showed good digestion. This type of food was used because of his inability to adapt himself to and handle dilutions of cows milk.

The treatment with the Arsenobenzol,—as to route of administration which we use, may be looked upon with some misgiving. First, we grant that intra-venous administration is the route of choice, but this small four-pound infant

had no available superficial veins. We discussed the possibility of using the longitudinal sinus through the anterior fontanelle, at the time of treatment, but we felt the risk from seepage and possible brain edema was too great.

At present other avenues of administration are receiving the syphilographers' approval. Trassavello (in *Policlinics* 26:937—Aug. 3, 1919)—advocates injection into the fascia lata rather than intra-muscular. Following this lead our last three injections were given in this site.

Some observers, as Alzemar (*Ann de Dermat. et Syph.* 7:14 Sept. 1918) are advocating Aqueous Solution of Neo-Arsphenamine by rectum, and claim rapid absorption. Other writers are recommending, and pharmaceutical houses are putting on the market, a Salvarsan in oil, to be used in the rectum.

This baby showed no improvement at any time, and on November 26th, due to the gradual decline, both parotid glands became swollen and red. They both softened and had to be opened, and discharged continuously until death occurred on December 7th, 1920.

It is not at all unusual to see suppurative parotitis as a complication, when the disease process is most severe, or when a disease is overcoming the patient. I have two cases in mind—one in which a suppurative parotitis occurred following a suppurating appendicitis in which there was a marked peritonitis. The other case was an empyema case complicating measles, in which the parotids suppurated. These conditions had no relation whatever to an epidemic parotitis.

PATHOLOGY

Postmortem Findings: Dr. Wahl:—At autopsy we found a small emaciated weasened infant with a thin turbid discharge from both nostrils and swellings at the angles of both jaws. The skin was loose, wrinkled, dry, and scaly. There were some scabs and crusts on the soles and palms. There were discharging sinuses in the swellings at the angles of the jaw (suppuration of the parotid glands.)

The organs were removed en masse from the body and are as you see here. You will note that the thymus and heart show the usual appearance of these organs in a young infant.

Note that the right side of the heart is almost as large as the left. This is normal in a small infant. The lungs show some small sub-pleural hemorrhages, a few of which extend into the substance of the lung. The surface of the lung is divided by delicate markings into distinct lobules. There are patchy areas of consolidation which have a dark red color. On section the interstitial tissue is more marked than usual, and the cut surface shows translucent areas often surrounded by congestion, or even hemorrhage. Pus can be expressed from the bronchi. The consistency of the organ is much firmer than usual.

The liver is enlarged and much firmer in consistency than normal. It has a peculiar dark dirty brown color. It cuts with much resistance. Its lobulation is indistinct. The architecture is obscure. Small yellowish-pink foci are scattered throughout its substance. The pancreas seems indurated. The spleen is enlarged, and has a dark reddish brown color. Its consistency is firm, and the cut surface shows prominent trabeculi and few Malpighian bodies. The pulp does not scrape off readily. The kidneys show very distinct fetal lobulation. The striation of the cortex is indistinct, and the glomeruli could not be recognized. The other organs do not present anything unusual. A section through the head of the femur shows an unusually irregular line of ossification, and the bone marrow towards the shaft seemed to be made up of yellowish-pink fibrous tissue rather than the soft red pulp seen normally in the shaft of a young infant.

His:ological examination of the organs shows some very characteristic lesions. The parotid gland is incompletely developed, and shows irregular, poorly outlined abscesses, and diffuse suppuration. The section through the heart muscle shows a small miliary gumma embedded in the wall. That is, there is a small area of necrosis infiltrated with leucocytes. Throughout the muscle there is a diffuse infiltration with lymphoid, plasma and acidophilic cells. The interstitial tissue of the lungs is markedly thickened and infiltrated by lymphoid cells. There is more or less desquamation of the lining cells of the air sacs. There are areas of broncho-pneumonia and abscesses. In the center

of the latter, clusters of bacteria may be seen. The mucosa of most of the bronchi is broken down, and the lumen filled with pus cells. Broad bands of young connective tissue separate the lung substance into lobules.

The architecture of the liver is obscure. There is diffuse increase of young fibrous tissue. Some of the sinusoids are distended and filled with myeloid cells. Foci of lymphoid cells are common, especially in the portal spaces. The bile ducts are proliferating. There is also the same fibrosis in the pancreas. The acini and Islands of Langerhans are incompletely developed. In the kidney the glomeruli are much smaller and more numerous in a given field than usual, while at the same time there are comparatively few convoluted tubules. There are also foci of undifferentiated renal cells, and acidophilic cells are scattered throughout the organ. The other organs do not show anything characteristic.

These gross and microscopic changes just described are very characteristic of congenital syphilis. In addition to the typical anatomical changes in congenital syphilis, there are some secondary changes, such as purulent bronchitis, suppurative parotitis, aspiration broncho-pneumonia, and sub-serous hemorrhages.

The main pathological lesions in congenital syphilis, then, are delayed development of the parenchymal organs and a diffuse chronic sclerosis with more or less cellular infiltration. Miliary gummata, such as was present in the myocardium of this case, may occur but are not usual. In the lungs the syphilitic changes are often referred to as "pneumonia alba". The consolidation is patchy in distribution. There are two processes going on in the syphilitic lung;—sclerosis, and desquamation of the cells lining the air sacs in a given case one may predominate, or both may be combined. Where the sclerosis is marked the cells lining the few acini present are cuboidal in shape, giving the appearance of fibrous tissue containing clusters of acini. Such a picture is scarcely recognizable as lung. In the liver there may also be marked sclerosis. The myeloid cells in the sinusoids are said to be compensatory, because the myeloid tissue of the bone marrow is entirely or mostly replaced by a chronic granulation tissue. In the pancreas there is the same

retarded development. While in acquired syphilis the pancreas is rarely the seat of any lesions, changes are very common in congenital syphilis, and those in the present case are typical.

A marked disproportion between the size of the child and the placenta is extremely suggestive of syphilis. If the placenta is very large, bulky and pale, and the child unusually small, especially in view of the size of the placenta, syphilis should always be suspected. The placenta is the seat of characteristic changes microscopically; there is a diffuse infiltration with lymphoid and plasma cells; the vessels are largely obliterated, and the villi, which normally contain many dilated capillaries, show few vessels; and the fetal villi are markedly swollen and filled with loose connective tissue cells.

The most pathognomonic finding would be the demonstration of spirochaetae in the tissues. In congenital syphilis they are present in enormous numbers. Swarms of them may be seen in the sinusoids of the liver, even in cases where there is little other change. It is not necessary to make a prolonged search for them, as is so often the case in the lesions of acquired syphilis. In this case no spirochaetae were found. This does not exclude syphilis, for the child had anti-luetic treatment which probably destroyed all of the organisms.

Dr. Wahl: Are the spirochaetae carried into the ovum by the spermatozoa?

Dr. Ockerblad:

It is a well known fact that women who are infected during the gestation period are not nearly so likely to miscarry as those who are already either congenitally syphilitic or were infected prior to becoming pregnant.

What would have happened to the offspring if this mother, when carrying the child during whose gestation she was infected had had no treatment? Would this child, which has now lived nearly two years and has shown no signs or symptoms of syphilis, have been as marked a syphilitic baby as the deceased we are now considering? I think not. We have numbers of cases on record which rather prove that mothers who are infected during pregnancy and have no treatment have children who at birth are without the palpable signs of the disease but

who constitute the class of congenitals who show the disease later in life. These persons often have a negative Wassermann. They in turn may have babies who are clearly syphilitic. The lessons we should learn from this very interesting case are first, that the offspring of a syphilitic mother is always syphilitic. I do not mean by this that such children will have the grosser stigmata of the disease. Many of them will constitute the class that the internist sees later in life with obscure disorders that are doubtfully syphilis. The second lesson we should gather is the apparent futility of our so called intensive treatment. The point that Dr. Wahl raises with regard to whether syphilis in the strict sense is ever inherited is really an academic question. We know that the spirochaete does not go in with the spermatozoa and that it does not penetrate the ovum but that the mother must be infected first and then the infection carried by the blood stream through the placenta to the foetus.

Dr. Wahl: In other words, there is no such thing as hereditary syphilis in the sense that the chromosomes (which bear the hereditary qualities) are altered. The developing embryo or fetus is infected by the blood from the placenta. The mother is always infected first. If the father causes the infection it is always by infecting the mother first. Just because the latter shows no manifestations of syphilis does not mean that she is not infected.

R

Uremia

The nature of uremia, its symptomatology and pathology are discussed by NELLIS B. FOSTER, New York (*Journal A. M. A.*, Jan. 29, 1921). He says that it has doubtless been a great handicap to study that pathology has not been able to discover in uremia lesions of the central nervous system with sufficient constancy to correct clinical judgment. The diagnosis of uremia can only be suspected from the character of organic change found postmortem. Aside from the lesions in the kidney and occasionally ulceration in the lower gastro-intestinal tract, uremia leaves inconstant signs. Since the symptoms are so largely those related to the central nervous system, attention has been given chiefly to search for cellular alteration in the brain and cord. The nature of the associated edema of the brain and cerebral hyperemia observed in one type of uremia are considered, likewise

the question of toxicity, anuria and nitrogen retention, the chemistry of the blood and especially the work done on the isolation of a toxic base. Foster says that the amount of toxin in 200 c.c. of blood is a fraction of a milligram. The base was dissolved in 1 c.c. of physiologic sodium chlorid solution and injected into the peritoneal cavity. Samples of blood from twenty-two cases of epileptiform uremia and from more than twice as many controls have been examined. For controls blood from other types of uremia and cases of anuria, epilepsy and also normal individuals was used. From none of these control samples has a toxic substance been isolated. When, however, the solution of the base from the blood of cases of epileptiform uremia is injected into a guinea-pig, the result has been uniformly fatal. The first symptoms usually appear about five minutes after the injection is made. There is rapid breathing and muscular twitching; this is often followed by a series of convulsive seizures, terminating in death in a few minutes. In other cases the animals show paresis of the hind legs, and have frequent bowel movements before convulsions develop. A few did not have definite convulsions, but severe twitching movements accompanying a stuporous state terminating in death. The result of these investigations seemed to indicate that the blood of patients with epileptiform uremia contains an organic base which is toxic. The substance isolated is basic in its properties and forms crystalline salts with platinum and gold. Of its chemical nature next to nothing is known, because it has never been possible to collect a sufficient quantity for analysis.

R

Movable Kidney With Unilateral Nephritis

The cases of two patients cured by operation are reported by JOSEPH M. CADWALLADER and ALEXANDER A. BROWN, San Antonio, Texas (*Journal A. M. A.*, Nov. 6, 1920). These two cases Cadwallader thinks are rather instructive, serving as they do to remind one that, while a mere movable kidney may constitute a negligible condition, it may sometimes be the seat of serious organic mischief amendable to proper treatment; that not every neurotic with a movable kidney is to be passed by or treated merely as such; and, above all else, that every patient with a movable kidney and nephritic urine must be subjected to ureteral catheterization, and each renal function and excretion be investigated separately. Chronic bilateral nephritis means Bright's disease, with its grave prognosis; chronic unilateral nephritis, from this particular cause, is curable and, hence, a vitally different matter.

THE JOURNAL

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W. E. McVEY, M.D. - - Editor

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The Wichita Meeting

The Wichita meeting of the society should be a record breaker in attendance and every one expects it to be. It is also very certain that the program will be exceptionally good. Some very noted men will have a place on the program. Some new features will also be introduced. It is expected that medical economics will receive more attention at this meeting than it has heretofore. As this will be a three days session these subjects of general interest can be introduced without encroaching upon the scientific program. The business meetings will be so arranged that no one will need miss any of the program. If such an arrangement can be carried out it will be very gratifying. As the meetings have usually been conducted, neither the business affairs of the society nor the papers on the scientific program received the attention due them. Some very important business matters have been passed over with entirely too little consideration. The House of Delegates should not be hurried either in the selection of officers or in the other business delegated to it. But the same might also be said of the program. Papers are read hurriedly and hurriedly discussed. Some of the best papers are not discussed at all. It is better to have a good paper read and have it carefully and intelligently discussed than to have three or four papers hurriedly read and not discussed at all. The discussions one must listen to are sometimes

discouraging, but unless the men are given an opportunity to prepare for it too much should not be expected.

It would greatly improve the program if the men who expect to present papers at the Wichita meeting would prepare their papers early, have several copies made and send a copy to each of two or three men they would like to discuss them. The men would have time to review the subject as the author is supposed to have done and the discussions would then be worth a great deal more than they usually have been.

Occasionally there are too many papers on the program for the time allotted. This is explained by the fact that usually one-third of those who promise papers and are given places on the program, fail to attend. Occasionally, as at Hutchinson, more than the usual number are present and the time allotted to discussions must be shortened.

Indifference

Possibly before this number of the Journal is printed—within a short time at least—it will have been determined whether the medical school is to receive a sufficient appropriation for a new building. Apparently the members of the medical profession in Kansas are quite indifferent as to the outcome of this effort to meet the requirements of modern medical education.

By some this is regarded as a crucial test of the ability and willingness of Kansas to support a medical school. Many of the profession, having been discouraged by the niggardly support the school has received, frankly assert their preference that the field should be abandoned or surrendered to Missouri unless the school can be put upon an equal footing with those of other states having like resources.

There are quite a good many who feel a whole-hearted and unselfish interest in the school and its development, but there are too many who for various reasons are totally indifferent or openly antagonistic. There are now really no valid reasons for antagonism. There are no personal or local interests which justify the antagonism of any member of the medical profession in this state to the medical school.

Indifference is characteristic of our profession. We are indifferent to the concerns of

most vital interests to us. If our legislature were to consider the advisability of regulating our fees and fixing a maximum charge of ten cents per mile for visits in the country and fifty cents each for visits in town, there wouldn't be a half-hundred protests from the doctors in the state. In spite of the fact that every one of us is represented by some member of the legislature, not a score of those members would hear from their medical constituents in regard to the proposed legislation. We would perhaps call a meeting, we would spend hours talking about it. We would appoint a committee to look after the matter; we would spend hours selecting someone to do, and telling him how to do, what we, each of us, ought to do, and could do in a few minutes.

If every doctor who wants a medical school that will do credit to the state will write to his representative and senator requesting them to support the bill appropriating money for the new building, it will do more good than all the lobbying the legislative committee can possibly do.

Council Meeting

The Council met in Kansas City on January 25. For the first time in the history of the society every Councillor was present at the mid-winter meeting. The subject that seemed to cause more discussion than any other was the program for the next meeting. It was the consensus of opinion that it should be a three day meeting and it was so voted. Every one had some opinion as to what the program should be, but when all were summed up there was a fairly constant preference for a program similar to those we have had for a number of years. The only variation from the ordinary program will be a symposium and general discussion on Medical Economics.

The Council offered some suggestions as to the entertainment, but as usual wisely left the matter to the committee on arrangements. While there are some who prefer to give all their time to the scientific program there are others who enjoy the banquets, smokers etc., and there is an occasional one who gets considerable pleasure and satisfaction out of the politics that occasionally enters into our annual elections.

It is important for the society that the Wichita meeting should have a large attendance and it would be unfortunate if any of the attractive features should be omitted.

In the evening the Council members were entertained by the Wyandotte County Society, that being the date for their annual banquet. The Wyandotte fellows have a wonderful faculty for entertaining themselves and scattering the spirit of goodfellowship abroad.

CHIPS

It has been learned that noises in a factory interfere with production.

Deaf mutism is prevalent in some countries more than in others.

In Switzerland 245 persons out of 100,000 suffer from it, owing, it is said, to the prevalence of cretinism. In the United States the average is 79 out of every 100,000 inhabitants.

The Statistics of the Minister of Health show that of the 50,000 babies born in France in 1919 twenty five thousand died.

Weaver had forty-five successful results in forty-seven cases of pneumonia with the sodium citrate treatment. It acts by decreasing the coagulability of the blood, thus aiding the re-establishment of the cardio-pulmonary circulation; and by maintaining the alkalinity of the blood. In adult cases 1 gram should be given every hour, day and night.

Lumiere and Chevortier have advanced the theory that the phenomena of anaphylaxis are due to disturbances of the cerebral capillary circulation as a result of the production of a flocculent precipitate in the blood serum. They have found that the reaction may be prevented by the use of sodium sulphocyanide, sodium ethyl-sulphate or sodium hyposulphite, of which the last named is the least toxic.

(Released for publication in daily papers immediately after breakfast.)

The National Association for the Prevention and Eradication of *Pediculus Capitis* in Human Children and Adults will hold its regular annual meeting in the Palm Room of the Hotel Acquet-duct, Pauline.

The program will begin with an address by the president of the Woman's Auxiliary, Mrs. Moravia Contumelius, on "The Culture and Beautification of Hirsute Appendages in the Human Race." This will be followed by an illustrated lecture delivered by Professor Don

Key Pestilencia on "The Comparative Efficiency of the Fine-comb and Coal-oil in the Eradication of Pediculus Capitis."

Resolutions will be adopted at this meeting requesting that Congress appoint a committee to study the pediculus capitis in its native habitat with a view to ascertaining the best means for its eradication; and that a fund of ten million dollars be provided for expenses of this commission.

In a paper read before the Southern Surgical Association, Hot Springs, Va., December 16, 1920, Dr. Charles A. L. Reed of Cincinnati said: The fact that chronic convulsive toxemia, usually called epilepsy, is constantly associated with displacements of the abdominal organs has now been demonstrated in 810 consecutive cases in my own hands. This demonstration has consisted of, first, the clinical history and, second, the physical examination of the patient; third, the serial x-ray study, and, finally, in the vast majority of instances, the surgical exploration of the abdominal cavity. This record, showing the additional and significant fact that the visceral condition is always antecedent to and associated with the convulsion phenomena, as shown by the earlier development of constipation, and the absence of both hereditary factors and extra-abdominal lesions, forces the conclusion that so called epilepsy occurs only as a symptom of splanchnoptosis. This conclusion is further confirmed not only by my own observations but by the daily observation of every general practitioner to the effect that epilepsy is always associated with constipation; that the epilepsy is worse when the constipation is worse; and that the most effective, ready-at-hand relief from seizures is offered by laxatives.

Macht (N. Y. Med. Jr. 8-28) suggests the use of benzyl benzoate, in cases of idiopathic hypertension without demonstrable affection of the kidneys. Both systolic and diastolic pressures are reduced and the effect is much longer than with the use of nitrites. It is particularly serviceable in cases that have become habituated to nitrites, though after a time patient's will also become habituated to benzyl benzoate. The dose suggested is twenty to thirty drops of twenty per cent alcoholic solution administered by the mouth in cold water or milk, three or four times a day. When once the blood pressure has been reduced it may be so maintained by giving considerably smaller doses.

Schmidt found that 14 out of 81 cases of sinus disease were definitely syphilitic and responded promptly to anti-syphilitic treatment. He advises that Wassermann tests should be made in all cases of sinus disease.

In France corpus luteum extract is successfully used in the treatment of hyperemesis gravidarum.

Lacourbas claims that functional insufficiency of the corpus luteum is responsible for the auto intoxication.

Pottet found lesions of the corpus luteum in lethal cases. Hirst had 99 successful results in 111 cases treated by administration of 1 mg. Lacourbas reported five cases cured by the administration of corpus luteum.

Among other methods for the early diagnosis of pulmonary tuberculosis those originated by Darenberg and Maragliano seem to have met with considerable favor in the examination of soldiers in European armies.

The first consisted in taking the temperature before and after half an hour's rapid walk. If there was a difference of 0.5°C. the patient was made to rest for an hour, and if at that time the difference had disappeared, he was regarded as tuberculous. The second consisted in giving the patient at night from one to two grams of potassium iodide. If the chest is examined the following morning crepitant rales will be found where only slight change in breath sounds could be made out. Sometimes a slight cough may be produced. One in private practice would hardly be justified in making a diagnosis on these tests without confirmatory evidence of a more definite and positive type.

Thompson (New Eng. Med. Jr.) reports a treatment for tuberculosis which he has used for five years in twenty four cases—six advanced, nine moderately advanced and ten early cases. One favorable result is claimed for the first group, five for the second and five for the third.

He recommends that fifteen grains of potassium iodide be given in a half pint of water at 7 a. m., followed at 11 a. m. and again at 1 p. m. by an ounce of chlorine water in a half pint of lemonade. After about three weeks the dose of potassium iodide may be increased to twenty grains and a third ounce of chlorine water given at 3 p. m.

There is no better lotion for rough skin or chapped hands than fresh old fashioned hogs lard. A sufficient quantity should be used to make the skin feel slick and then rub the skin thoroughly and then rub again. When tired rubbing finish by rubbing, preferably by rough or bath towel until all excess lard is rubbed off, then rub the skin gently for a few moments with the bare hands and the skin will feel like silk.

The lotion (adepts) can be used at any time but preferably just before retiring. When the

hands and face are washed in the morning the skin will feel soft and smooth. The lotion may have to be used several times according to the condition of the skin. If an esthetic perfume tone is preferred a drop or two of the essential oil of roses, cinnamon, musk or whatnot can be added to the adeps to fit the nose of the fastidious and a tonic in marked cases of psychasthenia. The oil should be added to the lotion at the time it is used.

There are no other two fats, probably, more nearly identical than man fat and hog fat.

High blood pressure is self conferred, is the rule and not the exception. Blythe in the Saturday Evening Post says (truthfully): The effects of improper feeding begin, to show heavily along about 50—before, if the process has been grossly improper; but about that time, if only ordinarily so. Then come the increased blood pressure, the pendulous paunch, the pouches beneath the eyes, the liver twinges, the kidney demonstrations, the heart murmurs, the auto-intoxication, and all the rest of the indications that some essential portion of the anatomy is preparing to go on a strike.

These cases are where the facts are known but are misinterpreted or are disregarded and the penalty is being worked out.

About 4,500,000 of the 110,000,000 inhabitants of the United States show a super intelligence over that which should be possessed by a boy 14 years old.

Psychological tests like medical diagnoses are more or less misleading, but the facts are that the average intelligence is too low.

This is due largely to superficial reading, newspaper education and fiction. Enough facts are known but the inability to think for ones self and to interpret the facts properly is lacking. Hence prey for the fanatic charlatan and fool killer is plentiful.

An abnormal appetite is a call of the stomach alone for food, over and above the normal demands of the tissues of the body. It is caused, as a rule, by over indulgence in eating. The excess or improper food setting up an invitation in the mucous membrane of the stomach or hunger center. A week fast will cure the abnormal appetite for food as a rule.

Normal appetite is a call of the tissues of the body on the stomach or hunger center for food. When the call for food by the tissues is not completely satisfied, that is when a little working room is left in the viscous and the other organs of digestion to exercise in, so there is no overcrowding (no gormandizing) the normal appetite will continue its regular calls and peace and harmony will prevail in the organism.

The peculiar effect of proper food on the starved European tots, is their growth in height before taking on flesh. This growth in some cases continued for several months before the children began to take on fat.

Dr. Clemens von Pirquet of Austria, of the European relief council, says further that these children seem almost unable to eat or digest real food when it is first given to them. They have been accustomed to meager fare and food substitutes for so long that the doctors have had to teach them to again eat nourishing food.

Gland transplantation was short lived. It is superseded by the life prolonging, virile youth restoring process called "Verjunglung."

The reputed father of this last discovery is the great Steinach, head of the Biological Institute of Vienna. There is no grafting of glands nor introduction of any foreign tissue or secretions.

The theory is to make the organ function. And this is done by connecting a normal functioning organ to the non functioning organ, thus energizing or heartening the sick or lazy organ.

The operation is done under a local anesthetic. The patient seeing the thing done but experiencing no pain is pseudo therapeutically impressed and nature is hoodwinked into normalency.

The nearer the equator the saltier the sea water becomes.

Doctor: Have you used the red free light, instead of the white light, in examining the lens, deeper structures and fundus of the eye, as suggested by Voght? If not, try it and compare the findings with the white light.

The eyes of school-children should be examined by a competent ophthalmologist. There may be normal vision and yet a gross error of refraction be present. These errors frequently bring on nervous trouble and interferes with the child's education and growth. It should be remembered that the normal development of the eye is in a ratio with the normal physical development of the body. Hence the importance of an ophthalmoscopic examination.

The little girl sat musing, on coming from church. Finally she asked: "Mother, is Hollywood Heaven?"

Mother: "Why no dear why do you ask such a question?"

Little Girl: "The preacher said, "Our Father, who art in Heaven, Hollywood is thy name."

"Ole," asked the Judge, "Are you a married man?"

"Ya, I married."

"Whom did you marry?"

"I married a woman."

"Fool! did you ever hear of any one who did not marry a woman?"

"Ya, my sister. She marry a man."

The companion story on the old Hill Billy who saw a giraff for the first time and after gazing at it a long time turned away in disgust saying "By heck there's no sich kritter" was duplicated the same day when he visited the pier and saw the men unloading the days fish catch. When they unloaded a monstrous big sword-fish, his astonishment knew no bounds and finally getting his wind yelled at the top of his voice, "The feller that kitched that fish is a gol darned liar."

Statistics, so far as they go, however, suggest that children, especially those of the class which is ordinarily considered most likely to be infected by venereal disease leave school long before the age at which sex education in regard to the twin diseases is commonly given. The earliest incidence as shown by these records appears in men at the age of 15 and shoots swiftly upward at 16, reaching maxima at 19 and 23. After 23 it drops as rapidly as it rose. Attention is called to the apparent significance of the fact that the ages between 16 and 23 are those between the most usual ending of school and the beginning of married life. For the women the incidence of the disease ranges about two years earlier than in men.

To say what the citizens of Kansas pay each year in dollars and cents to the account of venereal diseases is somewhat difficult. Enough is known, however, of the number of deaths they cause annually, and of the untold suffering of the innocent and guilty, to give any thinking man or woman an idea of no uncertain character as to the price they pay for these diseases. And into this account must go cost of sickness, inability, loss of time and the amount paid by the state year in and year out for supporting, in its insane asylums and other dependent institutions, the thousands of men, women and children, who are there on account of venereal diseases, and many of them there through no fault of their own. Yet the greatest economic factor connected with venereal diseases is not the number of persons they kill, as great as that is, but it is the impaired health and reduced efficiency of its host of victims.

In the discussion of a report of a systematic inquiry on the venereal infection rate in the army the author says: "This inquiry supports the belief that chastity is the most important factor in producing low rates." It might be

pertinent to ask how much it cost the Government to make a systematic inquiry such as this, which enabled this erudite gentleman to reach such a conclusion.

Walking "Indian Fashion", that is, with the feet pointed straight to the front, instead of at the customary angle, has been found to be good for weak arches, says the United States Public Health Service.

Intelligent members of the medical profession must be well aware that both the Pharmacopoeia of the U. S. and the National Formulary include many products that can scarcely be justified as medicinal on the basis of scientific consideration. Among the products included in the National Formulary is the fluidextract of echinacea. In 1909 a report of the Council on Pharmacy and Chemistry denied echinacea a place in New and Nonofficial Remedies because there was no evidence to show that it possessed therapeutic value. Despite this, echinacea is used extensively. The fluidextract and the tincture are made in enormous quantities, and the root enters into the composition of a large number of "patent", proprietary and non-secret mixtures. For this reason Couch and Giltner of the U. S. Bureau of Animal Industry made an extensive experimental study of echinacea therapy. Animal experiments designed to determine whether the drug possessed the properties that are ascribed to it gave negative results in every instance. (Jour. A. M. A., Jan. 1, 1921, p. 39.)

The well established curative properties of diphtheria antitoxin must not be confused with its possible value as a prophylactic against the disease. Attempts have been made to apply diphtheria antitoxin locally in the pharynx and nares with the hope of eradicating the objectionable micro-organisms that may have found lodgment there. Recent investigations to determine the effect of diphtheria antitoxin in preventing lodgment in and growth of the diphtheria bacilli in the nasal passages of animals were entirely negative (Jour. A. M., Jan. 1, 1921, p. 41.)

The various problems, the contradictory opinions and the commercialization of biologic therapy, induced the Council on Pharmacy and Chemistry to appoint a committee to prepare and publish an authoritative review of this subject. The object of the series, which has now been published, was to present to physicians concise, authoritative statements concerning indications, contraindications, methods of administration, dosage, value and possible danger of serums, vaccines and non-specific proteins in the

treatment of infectious diseases (Jour. A. M. A., Jan. 29, 1921, p. 318.)

At least five commercial manufacturers of biologic products make and push the sale of vaccines to prevent colds. Of these at least two, from time to time, have added new strains of bacteria to the formulae with which they originally introduced their products, so that seventy-five or eighty different types of bacteria are now included. Every year different types, varieties and species of bacteria have been associated with colds in different parts of the country. Presuming—although it has never been proved—that any vaccine has value in preventing colds, the logical thing to do is to prepare a specific vaccine for each form of cold in each part of the country. Commercially it is much more profitable to mix all the bacteria together, to prepare a vaccine and to inject this into the patient in the hope that some organism will produce antigens which will find their mates. The present day shotgun biologic mixture is more ridiculous than the old shotgun proprietary—and a greater menace to public health and to scientific medicine. (Jour. A. M. A., Jan. 15, 1921, p. 182.)

In the development of serums and vaccines, scientific investigation and experimentation have preceded clinical tests of those products which have proved of permanent worth. Whenever the clinical use of serums and vaccines has proceeded beyond well established facts determined by laboratory research, the result has usually been disappointing. To submit a serum or vaccine for clinical trial without successful preliminary laboratory investigation of its probable worth is an imposition on the profession. The success of diphtheria antitoxin and antityphoid vaccine has prejudiced the profession and public in favor of vaccines and serums so that they are willing to accept a new serum or vaccine simply because it is a serum or vaccine. In his introduction to a series of articles on serum and vaccine therapy which is now being published by the Council on Pharmacy and Chemistry, Flexner points out that in only a few instances has the anticipation been realized that a curative antiserum for each disease would be discovered. The history of antipneumococcus serum affords a striking example of the difficulties and pitfalls that are encountered in the development of remedies of this class. Thus far only one therapeutically active serum, Type I, has been developed, and this serum is not effective against infections by other types of pneumococci. Despite this, we are being offered today for clinical use "polyvalent" antipneumococcic serums recommended by the

makers for the use in all types of pneumococcus infection. (Jour. A. M. A., Jan. 8, 1921, p. 115.)

The possibility of effecting absorption of many drugs, other than the anesthetics, by inhalation is beyond question. Mercury, for example, has been so administered. The difficulties that attend such a procedure relate in particular to the uncertainties of accurate dosage. It has lately been demonstrated that calcium chloride solutions can be nebulized for inhalation so that the salt is absorbed from the respiratory tract. Since absorption of calcium from the alimentary tract is slow, indefinite and undependable, while subcutaneous or intravenous administration is objectionable or impracticable or both, attention becomes directed to the inhalation method of administering calcium. However, while small quantities of calcium are of dubious value, recent investigations indicate that the administration of larger amounts by inhalation methods is liable to exceed the limits of advisable concentration in the blood without any suitable mode of regulation. These findings may be a timely warning at a period when therapeutic novelties are likely to be proposed in increasing numbers. (Jour. A. M. A., Jan. 8, 1921, p. 116.)

WESTERN ELECTROTHERAPEUTIC ASSOCIATION

The third annual meeting of this association will be held at the Little Theatre, Kansas City, Missouri, under the presidency of Dr. B. B. Grover of Colorado Springs, April 21-22. The annual dinner will be given at the City Club on Thursday evening, and a number of distinguished speakers will be present including: Surgeon-General Hugh S. Cumming, Dr. A. J. Pacini, Chief of the X-ray Department U. S. Public Health Service, Dr. H. Bowing, Mayo Clinic, Dr. A. F. Tyler, Omaha, Dr. Wm. Benham Snow, New York City, Dr. Frederick Morse, Boston, Dr. Curran Pope, Louisville, Dr. T. Howard Plank, Chicago, Dr. Omar T. Cruikshank, Pittsburg, Dr. Byron Sprague Price, Pres. American Electriotherapeutic Association, and others.

A three days session of the Western School of Electrotherapy will precede the above meeting, beginning April 18th.

Clinics and demonstrations will be held every afternoon. An excellent commercial exhibit, comprising all the leading manufacturers of apparatus is being arranged, and will prove of great interest to visitors.

For information or program address the secretary, Dr. Charles Wood Fassett, 115 East 31st St., Kansas City, Mo.

SOCIETIES

Shawnee County Society

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, January 6, at the Chamber of Commerce.

A report of a case of congenital pyloric stenosis, with demonstration of case was given by Drs. Paul E. Belknap and C. E. Joss.

Dr. C. F. Menninger gave an interesting talk on Blood Chemistry.

E. G. Brown, Secretary.

Harvey County Society

The Harvey County Medical Society met in regular session on Monday evening, February 7, at the office of Dr. L. T. Smith, Newton, Kansas, after a dinner at the Auditorium Restaurant. After routine business was transacted the program of the evening was given by members of the Staff of St. Luke's Hospital, Kansas City, Mo.

Dr. Logan Clendening gave an illustrated lecture on "Chronic Lung Disease", laying special emphasis on the possibility and frequency of mistaken diagnosis.

Dr. Virgil McCarty's subject was "Relation of the General Practitioner to Otology." His plea was for early diagnosis and prompt recognition of indications for operation in suppurative middle ear disease for the preservation of hearing as well as the saving of life.

Dr. E. H. Skinner gave a number of lantern pictures, illustrating his paper, "Analysis of X-ray Bone Shadows." He classified Diseases of Bone as constructive—including Osteomyelitis and Syphilis—and Destructive—including Tuberculosis and Malignancy.

Dr. H. P. Kuhn spoke on "Post-operative complications of Appendectomy." He gave case histories, showing the accidents and emergencies that may and do arise even in carefully conducted cases and urged conservative treatment.

The members of the Society appreciated the program and express their desire for more along similar lines.

On motion of Dr. J. T. Axtell, seconded by Dr. R. H. Hertzler, the Society unanimously asked our Senator from this District to support

the pending measure to amend the law regulating the registration of nurses.

Frank L. Abbey, Secretary.

Harper County Society

The Harper County Medical Society will meet Feb. 16 h. The following program has been arranged:

"Gunshot Wounds Observed Over Sea."—Dr. Hawk.

"Empyema in Camp."—Dr. Mills.

"Morning Sick Calls at the Front."—Dr. Stephens.

"Medical Care of Men Crossing Ocean."—Dr. Westfall.

"Focal Infections."—Dr. Galloway.

"Focal Infections."—Dr. Gaume.

Election of officers and payment of annual dues.

A. E. Walker, Acting Sec.

Ford County Medical Society

An interesting meeting of the Ford County Medical Society was held at the office of Dr. F. M. Coffman, County Health Officer Friday, Feb. 4th.

The applications of doctors J. L. Nevin, of Spearville and J. J. McNamara, of Fort Dodge were received and they were regularly elected members of the society.

Officers for the ensuing year were elected as follows:

President, Dr. J. G. Janney, Dodge City; Vice Pres., Dr. G. O. Speirs, Spearville; Sec.-Treas., Dr. W. F. Pine, Dodge City; Delegate to State Meeting, Dr. G. M. Hollembeak, Cimarron; Alternate, Dr. G. O. Speirs, Spearville.

Plans were made for a clinic to be held at the March meeting in addition to the regular program.

Norton—Decatur County Society

The annual meeting of the Norton-Decatur County Society was held in Norton on Friday, January 21 at 2 o'clock. The following program was presented:

President's Annual Address.—F. D. Kennedy.

Pituitrin in Obstetrics.—E. A. Nelson.

The value of the X-ray in Diagnosis.—C. E. Virden.

Tuberculosis as a Toxic Disease.—W. S. Hunter.

Enucleation vs. Amputation of the Tonsils.—Arthur Reeves.

Secretary's Annual Report.—C. S. Kenney.

The following officers were elected for the year: President, F. H. Smith, Goodland; Secretary, C. S. Kenney, Norton; Delegate, C. S. Kenney, Norton; Alternate, F. H. Smith, Goodland.

Stafford County Society

The Society met in St. John at 3:00 p. m. Dr. J. C. Butler presiding and the following members present: J. C. Butler, W. L. Butler, W. S. Crouch, T. W. Scott, F. W. Tretbar, J. J. Tretbar, Stafford; M. M. Hart, H. H. Miner, Macksville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. Josn; W. C. Bundrant, Hudson; L. A. Fisher, Byers.

The guests were: Dr. G. O. Speirs, Spearville; Dr. Stoltenberg, Kinsley; Dr. J. C. Klippell and Dr. G. A. Blasdel, Hutchinson.

Dr. Speirs of Spearville read a paper on Exophthalmic Goitre which was very interesting and instructive. He placed emphasis upon the necessity for early diagnosis of this disease and said that successful treatment depended upon it. As a very helpful means to early diagnosis he called attention to new and comparatively inexpensive apparatus for the bedside estimation of basal metabolism. The paper was very highly complimented and discussed by every member present as well as the guests.

Dr. Klippell spoke enthusiastically of the new plans for the Medical Department of the University of Kansas at Rosedale and the members of the Society pledged themselves to urge our State Representatives to support legislation to further said plans.

The treasurer reported a balance of \$65.95 in the treasury. On motion the dues for 1921 were reduced to \$3.00. On motion Dr. J. T. Scott was requested to prepare a paper to be read at the 1921 meeting of the State Society on Endocrinology or some kindred topic.

The Society then proceeded to the election of officers for 1921 and the following were elected:

C. S. Adams, St. John, President; W. L. Butler, Stafford, V. President, J. T. Scott, St.

John; Sec. Treas., Dr. J. T. Scott was selected delegate to the State Convention and Dr. J. J. Tretbar alternate.

J. T. Scott, Sec.

Finney County Society

Reporting the last meeting of the Finney Co. Medical Society. Held January 12th, 1921. Officers for the year 1921 elected as follows: President, T. F. Blanke, Garden City; Vice President, S. Bailey, Garden City, Kans.; Secretary, R. M. Troup, Garden City; Treasurer, A. L. Brown, Garden City.

Next regular meeting to be January 31st, 1921 with subject of Liver. First paper, "Anatomy and Physiology of Liver," Dr. A. L. Brown, Garden City. Second paper, "Cirrhosis of Liver," Dr. McGinnis, Scott City. Discussion, Drs. Johnson and Rewerts, Garden City. Visitors cordially welcomed.

R. M. Troup, M. D., Secy.

Cowley County Medical Society

The January meeting of the Cowley County Medical Society was held at Winfield, Jan. 21st. Meeting called to order by Pres. C. R. Spain. Sixteen members present. Minutes of last meeting read and approved.

Program. President's address—Local Anaesthesia—C. R. Spain, M. D.

The paper gave an interesting history of the early use of local anaesthetics and traced the progress down to the present day. The uses, contraindications and toxicity of the different ones now in use was given. A special point was made of the use of ether anesthesia in cases of cocaine poisoning.

Dr. R. W. James opened the discussion which was taken up by the majority of those present. During the discussion special importance was placed upon the proper preparation of solutions urging the use of distilled water, the use of tablets which did not contain combined drugs such as adrenalin but rather the separate addition of such drugs to the desired strength and also the use of weaker solutions than have been used formerly.

The Duodenal Tube—H. H. Jones, M. D.

Dr. Jones gave the history of the tube and described the various ones now in use giving

the advantages of each. He divided his discussion of the uses of the tube into those for diagnostic purposes and those for treatment. The use of the tube for continuous lavage of the stomach in cases of post-operative gastric disturbances was encouraged. An interesting discussion followed.

Motion was made and carried that the Society send resolutions of regret on the death of Dr. J. W. Sparks of Arkansas City. Dr. Sparks was the first president of the present organization of this society and has been an honorary member for a number of years. He was one of the early pioneers in the practice of medicine in Kansas.

It was moved and carried that a few outside men be invited to address the Society during the year.

C. C. Hawke, M. D., Sec'y.

—————B—————

Absorption of Digitalis from Gastro-Intestinal Tract

The fact that a definite effect from the administration of digitalis appears in most patients at the third hour, HAROLD E. B. PARDEE, New York (*Journal A. M. A.*, Nov. 6, 1920) says, shows that the drug is fairly quickly absorbed, and that its action begins much sooner than has been believed. After the effect appears it increases slowly and usually reaches its maximum at about six or seven hours after the administration, maintaining this maximum for a period of twenty-four hours. The change then decreased steadily in two cases that were followed for three days and for ten days after administration, and increased in all of the five cases that were continued on further doses of digitalis at the end of the twenty-four hour period of observation. The change became much more marked as the patient approached the point of full therapeutic action of digitalis. The effect on the heart rate of patients with normal sinus rhythm seems to begin on the average slightly before the effect on the muscle, but is not constant in this. When the rate is between 60 and 80 to start with, the slowing is appreciable, and seems to reach its maximum at about the same time as does the muscle effect, i. e., after six or seven hours. With rapid rates the slowing was very marked in one case of auricular fibrillation investigated, while in a case with normal rhythm the rate was scarcely affected. These two cases fall in with the commonly accepted conception of the effect of digitalis on rapid heart rates, that those which are due to

auricular fibrillation are promptly slowed while those which have an accelerated sinus rhythm are but little affected. The amount of slowing shown by the cases with slow regular rhythm varies from 7 to 16 beats per minute, and is much more than it was anticipated to find. It appears that the heart which is not accelerated by abnormal influences is more susceptible to the vagus effect on rate. It seems evident to Pardee that, when given by mouth, digitalis is absorbed rapidly enough to affect both heart rate and heart muscle in from two to four hours in different patients, and that the effect increases to a maximum at six or seven hours, which is maintained at least approximately for twenty-four hours.

In patients who are not suffering from heart failure, the variations in the rate of absorption are not great, and it may be surmised that this is also true of patients who are suffering from heart failure. Patients who receive a single dose of digitalis by mouth will be subject to its influence first at the third or fourth hours, and strongest at the seventh hour, whatever may be the size of the dose. It is recommended that a single dose of 1 minim of the tincture per pound of body weight should never be exceeded when a tincture of unknown potency is being employed. The administration of single doses equivalent to 1 minim per pound is inadvisable except in the presence of urgent heart failure, when the patient is in bed and when prompt results are demanded. It should never be attempted under any circumstances if the patient has received any preparation of digitalis or its allies within a period of two weeks. When it is desired to maintain a continuous effect from digitalis, it is unnecessary to give it at less than six hour intervals, for the maximum effect of any one dose will not be reached until six hours after its administration. A twenty-four hour interval between doses would appear to be quite satisfactory for maintaining a continuous effect; at least, this has been Pardee's experience. One dose can be given each night and will carry the patient until the next night. A dose of 20 minims daily, which is the average amount that the body can dispose of in twenty-four hours, will suffice in the great majority of patients to maintain the desired digitalis effect which has been produced by a series of larger doses. It is furthermore plainly inadvisable to give a second dose at an interval of less than six hours after a large initial dose such as has been recommended, for the full effect of the first dose will not be manifest until this time has elapsed. It would be more reasonable to wait for twelve or eighteen hours before giving the second dose, for by that time early toxic

signs might make their appearance and warn that more of the drug would have no further beneficial effect on the heart, and would only produce the undesirable phenomena of poisoning.

—————R—————

Abdominal Pain in Diseases of Kidney and Ureter

This study is based on a critical review by ARTHUR B. CECIL, Los Angeles (*Journal A. M. A.*, Nov. 6, 1920) of 300 cases in which a complete urologic investigation was carried out on the upper urinary tract. It was undertaken for the purpose of determining the frequency of occurrence and distribution of abdominal pain in association with diseases of the kidney and ureter. There were sixty-seven cases of stone in the kidney or ureter. Most of them occurred between the ages of 30 and 44. Blood was found in the urine in fifty-six cases, pus in fifty-four, albumin in thirty-two. Thirty cases showed bladder disturbances. Pain was present in every case, and in the large majority of cases the patients presented themselves for treatment on account of pain. In a few instances, hematuria was the principal complaint. Twenty-one cases presented typical renal pain. Nineteen cases presented pain in the abdomen alone. In twenty-six cases, pain in the back was associated with pain in the abdomen. The confusing nature of abdominal pain in cases of stone in the kidney and ureter is well brought out by the fact that in thirteen of the sixty-seven cases studied, various surgical procedures had been undertaken for the relief of pain in which the symptoms were in no way changed, and in which it has been demonstrated that the pain was of renal origin. In eight cases stone had not been diagnosed. A diagnosis of appendicitis had been made in five cases, gallstones in two cases, and ptomain poisoning in one case. The position of the stone, whether in the kidney or in the ureter, had little bearing on the distribution of the pain. In a group of forty cases of renal tuberculosis every case showed pus in the urine. Blood was found in the urine in thirty-eight cases, and albumin in thirty-four cases. Tubercle bacilli were found in every case directly by slide investigation, and only in a few instances was a guinea-pig injection of any help. Abdominal pain was present, without pain in the back, in seven cases. In six cases, pain in the back was associated with pain in the abdomen. Pain in the back alone occurred in eight cases. In eighteen cases, no pain was complained of, and the symptoms were entirely limited to the bladder. No abdominal operations had been performed for relief of pain. Of seventy-seven cases of pyelonephritis

pus was present in the urine in seventy-three cases; blood in forty-six; albumin in fifty. Of fifteen cases of left renal infection there was no pain in seven cases. In fifteen cases of right renal infection, pain was absent in five cases. In twenty-five of the forty-seven bilateral cases there was absence of either abdominal or renal pain. In only two instances were abdominal operations performed with the idea of relieving abdominal pain in this series of cases of pyelonephritis. Hydronephrosis and hydro-ureter comprised twenty-six cases. The urine showed pus in nineteen cases, blood in seventeen and albumin in fifteen. Bladder disturbances were present in thirteen cases. Pain, usually severe, was present in all these cases, either in the abdomen or in the back. Of two instances of tumor of both kidneys, one presented pain in the right upper abdomen, the other colicky pain across the upper abdomen and left lower abdomen. Neither showed pain in the back. One case showed pain in the right back without any associated pain in the abdomen. One case of hypernephroma presented pain in the region, but no abdominal pain. There was no abdominal pain or bladder disturbances in a case of polycystic kidney. Cecil advises that in obscure cases of abdominal pain, pyelographic studies should be more frequently made. Emergency of operation in obscure abdominal pain does not often depend on severity of the pain alone. Some of the severest types of abdominal pain have as their origin diseases of the kidney and ureter.

—————R—————

The Treatment of Pernicious Anemia by Splenectomy

Fifty cases in which operation was performed, more than three years ago, are reviewed by H. Z. GIFFIN and T. L. SZLAPKA, Rochester, Minn. (*Journal A. M. A.*, Jan. 29, 1921). The immediate operative mortality of the series was 6 per cent. The deaths occurred in the first nineteen cases. The reduction of mortality is ascribed chiefly to more careful preoperative treatment and the exclusion of the anemias of the more acute type. Forty-two of the forty-seven patients who recovered from operation have died. Ten (21.3 per cent.) lived longer than three years, while twenty-one (45 per cent.) lived longer than eighteen months after operation. Five (10.6 per cent.) of the forty-seven patients who recovered from operation were splenectomized four years and nine months ago, one four years and eight months, one four year and five months, and one four years and three months. These five patients at the time of their last reports were in good general condition. The preoperative history of these patients in

each case was approximately one year; the total average duration of the disease was considerably more than five years. Including with these the patients who survived operation at least three years but who are now dead, there is a total of ten (21.3 per cent.) in whom the total duration of disease before and after operation was four and one-half years or more. This is clearly longer than the average expectation of life patients with pernicious anemia, and would seem to lead to the definite conclusion that life is prolonged in a considerable percentage of cases. On neurologic examination before operation, twenty-nine patients (58 per cent.) showed definite evidence of sclerosis of the spinal cord. Eight more (16 per cent.) registered complaints suggestive of early involvement of the spinal cord, making a total of thirty-seven patients (74 per cent.). Marked degeneration of the cords has not progressed in patients in whom the degeneration was slight previous to splenectomy. It is possible that the progress of the degeneration is arrested in some of the patients. Mental symptoms have not developed following operation. In the selection of patients for operation in this series, preference was given persons between the ages of 35 and 45 with a previous history of one year or less, a favorable type of blood picture, and with little if any evidence of degeneration of the spinal cord. An absence of marked leukopenia with a polymorphonuclear rather than a lymphocytic predominance in the leukocyte count, marked hemolytic activity, estimated by the examination of the pigments in the duodenal contents in the presence of a competent bone marrow and a moderately enlarged spleen, were regarded as favorable to splenectomy. Patients in acute exacerbations and patients showing evidence of bone marrow exhaustion were excluded so far as possible. The histories of the surviving patients is given in full.

R

Treatment of Hereditary Syphilis

PHILIP C. JEANS, St. Louis (*Journal A. M. A.*, Jan. 15, 1921) describes in detail a plan of treatment for hereditary syphilis which has been in use in the children's clinic of the Washington University Dispensary and in the St. Louis Children's Hospital for a period of four years. The child attends the clinic once a week. At each visit, 0.03 ($\frac{1}{2}$ minim) of a 1 per cent solution of mercuric chlorid for each kilogram (21.5 pounds) of body weight is injected intramuscularly. Mercury with chalk is prescribed three times daily by mouth in doses ranging from 13 mg. (1-5 grain) for small infants to 100 or even 130 mg. for the largest children. A laxative effect is avoided by de-

creasing the dose when necessary. Every two months there is started a course of three intravenous injections of arsphenamin given at weekly intervals. The dosage is 0.01 gm. for each kilogram of body weight. Mercury administration is not interrupted for the arsphenamin course. A rest period of from four to eight weeks is given during the first year of treatment, provided the attendance has been sufficiently regular. Infants are required to continue such routine for at least one year, and older children for at least two years, regardless of what the Wassermann reaction shows. Treatment is continued in the same manner for as much longer than this as seems indicated by the clinical signs or the Wassermann reaction. It has been found desirable to continue treatment for six months or longer after all evidences of activity, including the Wassermann reaction, have disappeared.

R

Adrenalin in Diagnosis

The new science of endocrinology has developed so rapidly that, in order to remain in the vanguard of the march of progress, the physician must needs keep himself informed on every phase of glandular therapy. In harmony with this idea we have directed the attention of our readers, on several occasions, to the series of instructive essays on Adrenalin that have been appearing in the advertising section of this journal.

In the current issue we present a brief discussion of the use of Adrenalin as a diagnostic agent in hyperthyroidism and pancreatic diabetes, also as a test of suprarenal function. The technic of these tests is simplicity itself, and there would appear to be no reason why any practitioner should not avail himself of them in certain obscure cases in which a differential diagnosis by the usual means may be difficult or even baffling.

The preparation employed in making the tests is the original 1:1000 Adrenalin Chloride Solution of Parke, Davis & Co., upon the use of which for twenty years the literature of suprarenal therapy has been built up.

R

Occult Tuberculosis

A large group of patients suffer symptoms from a tuberculous infection which is non-progressive. The symptoms are due to a subtle intoxication which undermines the functional powers and coordination of all vital tissues. This condition Sewall of Denver terms "occult tuberculosis." The patients as a rule are not definitely sick. There is a general functional insufficiency with lack of staying power that is



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ELIXIR ENZYMES is a palatable preparation of the proteolytic and curdling ferments that act in acid medium. It is recommended as an aid to digestion and as a gastric tonic generally.

Elixir of Enzymes is of special service in correcting faulty proteid metabolism which is one of the principal causes of autointoxication.

Elixir of Enzymes is an excellent adjuvant and vehicle for exhibiting iodids, bromids, salicylates and other drugs that disturb the digestive functions. One dram of Elixir Enzymes will carry 46 grains of potassium iodid or 45 grains of sodium salicylate or 17 grains of potassium bromid.

Elixir of Enzymes contains the curdling ferment and may be used for making junket or curds and whey. Add one teaspoonful of the Elixir to half pint of lukewarm milk, stir thoroughly and let stand till cool.

For minimizing the organic disturbances and eliminating the corrosive effect of potassium iodid on the mucous membrane of the stomach as well as disguising the taste, the following combination is recommended:

Potassium Iodid, 2 ounces.

Distilled water, enough to make two fluid ounces.

To exhibit, for instance, 20 grains of potassium iodid three times daily, use one teaspoonful of Elixir of Enzymes, one teaspoonful of the above solution to half pint of lukewarm milk; stir thoroughly and let stand until cool. Take one-third of this quality as a dose. This junket should be made up fresh every morning.

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brought out by slight physical strain. Neuralgic pains, headaches, dizziness, undue fatigue, and nervousness are common symptoms. In women menstruation is apt to be scanty or is frequently missed. The temperature is usually not elevated but may rise slightly after exercise. The lungs are rarely suspected, but they give auscultatory and X-ray evidences of slight sclerosis involving especially the hilum lymph nodes and the upper bronchial radiations. The symptoms may often be traced to circulatory or harmonic insufficiency. Many of these patients have probably been classified under the title "effort syndrome" or "neurocirculatory asthenia." The most valuable objective sign of occult tuberculosis is the reaction of the blood pressure to slight strain such as changing from the supine to the erect position. Most of these cases have vascular hypotension, but the most significant feature is an abnormal lowering of pulse pressure and its tendency to progressive subsidence when the erect posture is assume. This may be due to inordinate fall of systolic or to rise of diastolic pressure in the upright as compared with the recumbent position. This pressure change is not specific of occult tuberculosis but after exclusion of "focal infection," it should suggest this condition and lead to the application of diagnostic methods, especially X-ray photography.

—————R—————

Protein and Carbohydrate Equivalents in the Diabetic Dietary

In the diet list presented by EPHRAIM M. EWING, Ashville, N. C. (*Journal A. M. A.*, Jan. 29, 1921), each portion in the protein table contains approximately 6 gm. of protein, this quantity being chosen because it is the protein content of eggs, certain diabetic muffins, rolls, etc. Each of the carbohydrate portions contains approximately 5 gm. of carbohydrate, for with the average case of diabetes it is hardly practical to give orders for variations in the patient's diet of less than 5 gm. In calculating the total number of calories it is easier to multiply the total grams of protein, fat and carbohydrate by 4, 9 and 4, respectively, so the caloric values of the individual portions are not given. It is believed that these advantages are offered by the present arrangement: 1. Substitution of one food for another requires no arithmetic, so variety, one of the diabetic's chief desires, is made as easily attainable as possible. 2. With such a dietary, scales and knowledge of simple addition, it is easy for even the uneducated person to limit himself to the prescribed number of grams of protein, fat and carbohydrate. For instance, if a patient's pre-

scription reads: protein, 65 gm.; carbohydrate, 35 gm., and fat, 150 gm., he may be told to weigh on his scales nine or ten protein portions, and seven carbohydrate portions (which also contain some protein), marking down the protein, fat and carbohydrate content in each case. After these figures have been added, the required amount of fat is weighed or measured. 3. Less arithmetic is necessary than when each portion weighs the same but has a different composition, so it is easier to acquire such a knowledge of the individual portions that the use of the scales may at times be discontinued.

—————R—————

Spontaneous and Operative Cure of Cirrhosis of Liver

DAVID RIESMAN, Philadelphia, (*Journal A. M. A.*, Jan. 29, 1921) reports a case of cirrhosis of the liver in which there was marked ascites with general enlargement of the veins of the abdomen and a very typical caput medusae, as well as edema of the legs. Tapping was resorted to repeatedly. At each tapping, except the last one, from 3½ to 4½ gallons of straw colored fluid were removed. Despite the tapping, the edema of the legs steadily increased until the limbs became of such enormous size that they could not be lifted or moved in the slightest degree. The scrotum was also greatly swollen. After the thirty-sixth tapping, about ten months after the first tapping, Riesman detected over the abdomen, particularly in the region of the liver and spleen, friction, appreciable both to touch and to the ear. Over this area of friction there was also considerable tenderness. The abdomen did not fill up again. Not only was there no return of ascites, but all the edema of the hugely swollen legs and of the scrotum disappeared. The man was able to be up and about, and even left the hospital. At present there is no ascites; the venous distention and the caput medusae have disappeared. Riesman suggests that as indicated by the extensive friction, pain and tenderness, a fibrinous peritonitis followed the last tapping. The adhesions resulting from this peritonitis constituted a spontaneous Talma operation and sufficed to establish an adequate collateral circulation. In two other cases reported a cure was effected by the Talma operation.

—————R—————

Experimental Study of Latent Syphilitic as a Carrier

The investigations reported by FREDERICK EBERSON and MARTIN F. ENGMAN, St. Louis (*Journal A. M. A.*, Jan 15, 1921) demonstrate the fact that those persons that give a history of an old syphilitic infection may harbor active virulent *Spirochaeta pallida* for years, and this,

in the face of irregular negative Wassermann reactions or slight reactions only in the cholesterin antigen.

R

Difficulties in Diagnosis of Osteosarcoma

Since there are no pathognomonic symptoms or definite serologic reactions whereby the early appearance of primary osteosarcoma can be recognized, ROBERT B. COFIELD, Cincinnati (*Journal A. M. A.*, Nov. 6, 1920) says the aids to diagnosis are: (1) the clinical data; (2) the roentgen-ray examinations, and (3) exploratory operation with macroscopic and microscopic examination of the pathologic material.

R

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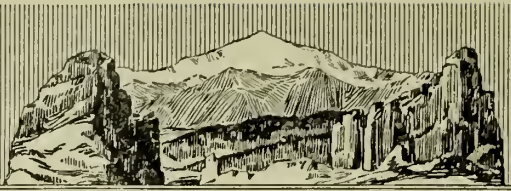
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No. 3

Operative Obstetrics

GEORGE R. LITTLE, M. D., Wichita

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

No branch of medicine or surgery has undergone more progressive changes in the last few years than obstetrics. The results made possible by modern obstetric operations are little short of ideal and that the general tendency of operative procedures is still destructive is due to a variety of factors. In contrast to other branches of surgery we have not been eager enough to seek out and at once put into use every improvement in operative technique. For many years, in spite of the work of brilliant men who showed us that imperfect results were due to a persistent refusal to recognize the gravity of the procedures we were undertaking and that operations of such magnitude could be carried to ideal termination only when done under the best of operating conditions, we continued to be content with half-done work, satisfied if both patients survived the ordeal of delivery; and we are now only in limited numbers devoting to obstetric procedures the skilled preparation which the importance of its operations demands. Passing over the vast bulk of so-called normal cases which in clean hands escape sepsis and need only reconstructive surgery, we have too many babeless mothers and a regrettable number of motherless babes, not to mention maimed and crippled children and mothers permanent invalids through procedures supposedly undertaken in their interests, but poorly chosen or unskillfully carried out. Aside from insisting on the importance of adequately prepared surroundings in which to work, we as obstetricians have not sufficiently emphasized the need for surgical skill in the conduct of labor. The gaping vulva, the relaxed perineum, the

bulging cystocele with the occasional incontinent rectal sphincter are unnecessary, for the operation of episiotomy will prevent the development of this pelvic hernia. In the primipara at labor the pelvic floor is as efficient as the abdominal wall at the removal of a primary acute appendix, but if abdominal hernia followed appendectomy because of unskilled closure with the frequency that pelvic hernia now follows unskilled or entirely neglected perineorrhaphy, sentiment would soon force the operator to perfect his work or eliminate him from further service in his community. The same should be true in this field. Twelve years experience with the operation of episiotomy satisfies the writer that the operator who does not perfect himself in its use is not giving his patients modern obstetric care.

Another feature in this lack of application of sound surgical principles to obstetric operations is that many operative cases are cared for in country practice by men who although skillful and interested in their work handle it under such adverse conditions that they cannot expect to obtain ideal results. Some of these men, recognizing the responsibility of attempting under these circumstances procedures of such gravity that they threaten life, are sending abnormal cases which promise to be operative and patients with whom they have had previous experience to well-equipped maternities. This is both commendable in spirit and practical business, for the public is awake to the knowledge that many of the catastrophes which were formerly accepted as inevitable are avoided when sufficient effort is made to put the patient into the hands of skilled obstetricians, and where she can have sufficient careful obstetric nursing. It is to the credit of the profession to do this rather than to have the public carry it over their heads.

Another factor which bears unfavorably on operative results is that in hospitals obstetric care is not always satisfactory. Hospital boards have been slow to recognize the urgency of the need for adequate maternity departments. Sufficient skilled obstetric assistance is an absolute necessity for the attainment of high grade results. This is not always provided. Especially is this true in hospitals where through poor staff organization the surgical side is allowed to overshadow and dwarf all other departments. This will perhaps apply to the average general hospital. In these institutions one may fare well enough on occasion in the day time, but if he be so unfortunate as to have his case continue into the night he finds himself without help, the day force gone and perhaps a pupil nurse left to watch the progress of his case and to answer calls for ten or twelve other patients. This means that he must watch the case himself, precludes the possibility of rest and forces him to operate when worn and sleepless, an injustice to patient and attendant. Contrast this with the surgeon fresh from a night's rest and with a half dozen nurses in the operating room. With his increased assistance and perfected organization his mortality has shrunk and his results improved. Obstetric results will do the same. Four nurses can be easily kept busy in the performance of a forceps operation. Again a reason that better results in operative work are not attained is that a large per cent of cases is cared for by men who have no serious interest in the case as such, but do the work only to hold the family for what other work it produces. In a technically difficult branch which requires as much enthusiasm as obstetrics, the lack of earnest interest can produce but one result—the work will be done in the easiest way and with the least possible expenditure of time. This precludes the possibility of high grade work and will not long continue, for the public is beginning to insist on skilled care.

There is another condition which until recently has been a necessity but which no longer works to the interest of operative obstetrics, and that is that much of the work, both as operator and consultant, has been done by the surgeon. This has not been ideal from several standpoints. The surgeon is out of touch with things obstet-

rical and too often has served but a brief apprenticeship at best. Seeing the delayed labor from the surgical side, he is prone to forget that about eighty per cent of these cases, due to disproportion between pelvis and skull, terminate spontaneously, if given a chance. He is seldom skilled in pelvimetry or cephalometry, and is not alert for the errors in technique in the conduct of the case which make futile abdominal delivery in obstructed labor. His counsel cannot carry the same safety for the patients as does experienced obstetric opinion formed from constant contact with abnormal cases. Further the presence of the surgeon in this field hinders its development, as, with the consultation and major operating usurped, many bright minds which are naturally attracted by its possibilities, seek other fields. Obstetrics is a major specialty and as such its operative procedures should be governed and carried out by competent obstetricians. It is difficult to see, judged strictly by obstetric indications, why such an operation as craniotomy should be listed on a fee-bill under any but an obstetric heading, and why such a typically obstetric procedure as cesarean section should occupy the place of honor under the heading of general surgery.

Changes are developing in these matters. Obstetrics is coming into its own. Its future is bright. The public is awake to the advantages of hospital care for surgical procedures and is fast turning to the hospital for help in the crises of confinement. Each year sees the maternity departments of more hospitals inadequate to the demands of those applying for care and with this increased demand these institutions are discovering the desirability of this class of work and no longer turn a deaf ear to the requests of the department for sufficient trained help and adequate facilities. Concerted effort and continued insistence upon the importance of our work will bring conditions in which we can do our operating with some of the comfort and convenience under which general surgery is now done. Indeed, as a result of past efforts, these things are already materializing and the newest hospital in the state, just nearing completion, has provided equal space and equipment for the maternity and surgical departments—an innovation for a general hospital. When these con-

ditions prevail more commonly over the state and the bulk of our women can have the care they are entitled to we shall be able to bring our work to a satisfactory standard and make the results of operative obstetrics justify themselves.

—B—

Infectious Diseases of the Gall Bladder and Ducts

L. O. NORDSTROM, M. D., Salina

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

Cholecystitis with or without the presence of biliary concretions is an inflammatory reaction in the tissues of the gall bladder as a result of bacterial invasion. Bacteriological reports from various sources representing a great number of cases from which cultures have been made from gall bladder walls, from bile, from stones and from lymph nodes along the ducts show that the organisms most frequently encountered are: the bacilli coli, typhosus, pneumoniae and various strains of streptococci and staphylococci.

Microorganisms may gain admission into the gall bladder by one or more of the following routes: (1) through the blood stream in the general circulation; (2) filtered through the liver from the portal circulation; (3) ascending along the common duct from the duodenum and (4) through the lymphatics from adjacent structures.

When the gall bladder becomes the host of bacteria anything which mechanically interferes with bile drainage becomes a predisposing factor in the causation of stones. The most common among these are tight lacing, pregnancy, pancreatitis, neoplasms and catarrhal conditions of the duodenum. The process of stone formation is briefly, stasis of bile, alteration in consistency and in constituency, the precipitation of salts which together with masses of bacteria forms a nucleus around which cholesterol is deposited.

The tissue reaction in infectious gall bladder diseases depends upon the extent and the severity of the infection and the patient's resistance. This varies from an acute congestion of the mucosa to a purulent, necrotic and gan-

grenous condition of the entire wall of the gall bladder.

DIAGNOSIS.

I am convinced that too much emphasis can not be made of the importance of making clinical diagnosis of all cases of gall bladder lesions independent of the aid of laboratories. Laboratory findings should be referred to only for confirmatory purposes.

The first and of greatest importance is a carefully obtained history of the case, and as a matter of fact, correct interpretation and proper correlation of the symptoms. Ordinarily we should be able to reveal a history of infectious diseases such as pneumonia, typhoid fever, rheumatism, etc., or primary foci of infection about the teeth, in the tonsils or some other part of the upper respiratory tract to account for the gall bladder pathology, which is the result of secondary infections. A little diplomacy, patience and perseverance are required in most cases to obtain a fairly accurate account of the time and mode of onset, duration, course of development and proper relationship of the symptoms.

A positive diagnosis of gall bladder disease is often very difficult to make, because the symptoms point but vaguely to disturbances of the biliary system, but are reflected to the stomach and expressed in dyspepsia, pressing heavy feeling, fullness, queer sick feeling, gas, belching, nausea, vomiting and pain.

In the chronic type, the patient has acute attacks, usually of short duration with intermission of hours, days or months of good health. The patient is unable to give a definite cause for the onset of the acute attacks. The means of relief in mild cases usually are hot drinks and hot applications over the seat of pain, and in severe attacks opiates. The pain is in the epigastric region and of an ascending radiating type, often reflected posteriorly to the right and left sub-scapular regions, and in a few cases to the heart, simulating angina pectoris.

The theory that the stones cause pain in passing through the ducts by scratching, tearing and cutting receives but very little support at the present time. A mucus plug with no rough surface nor cutting edges causes severe pain

when arrested in the lumen of the ducts and obstructs the bow of bile. The cause of pain is probably the intra-cystic tension and peritoneal traction.

There are several conditions which may give clinical pictures similar to that of gall bladder disease, yet very careful study reveals some points which are of value in differentiation. A diagnosis should not be final until by a process of elimination the following conditions have been excluded: ulcers of the duodenum and stomach, appendicitis, renal colic, mechanical obstruction of the intestines, gastric crisis in cord diseases and angina pectoris. The symptomatology in each of these conditions is as a rule more definite and clear-cut. To differentiate gall bladder affection from duodenal and gastric ulcers requires very careful consideration. Some of the distinguishing points are: the ulcer patient does not present a septic condition with a furred tongue, headache, etc., as is ordinarily found in gall bladder infections. Nausea not so common in ulcer. Vomiting rare and usually once, and not due to nausea but to pain. Vomitus clear, acid liquid mixed with very little if any food residue. Vomiting in gall bladder cases is of a regurgitant type, preceded by nausea, and the vomitus mixed with bile. The pain in ulcers bears, as a rule, a definite relation to food intake, and is controlled by food and alkalis. On physical examination tenderness in gall bladder cases is in the right sub-sternal region, while in ulcer cases the tender points are more localized and closer to midline.

The theory of presumption should always be taken into account when making a diagnosis of gall bladder infection. It occurs principally in middle life. More frequent in women than in men, the ratio being on an average, 4 to 1. More frequent in women who have borne children with an average ratio of 5 to 1.

The radiogram is of value to confirm the clinical diagnosis in but a small number of cases.

The treatment of cholecystitis and cholelithiasis is surgical. Should the gall bladder be drained or removed? No surgeon who does cholecystectomy in all cases where surgery is indicated is rendering the best service possible

to his patients, any more than he who takes the view that cholecystotomy suffices in all cases. I believe too many functioning gall bladders are being sacrificed. We must admit that the gall bladder has certain definite functions to perform. The chief and most important function has not as yet been definitely settled. Up until a few years ago physiologists held that the chief function of the gall bladder was the storage of bile. Subsequently the theory was advanced that the bladder produced mucus which entered into the bile, and a chemical change took place in the bile, rendering it more fit for its function in the intestines as well as rendering it innocuous if perchance from any cause it should be forced through the pancreatic duct into the pancreas. Later the theory has been advanced that the gall bladder serves as a pressure gauge, maintaining a certain intrabiliary pressure.

I fear that too much emphasis is made many times by surgeons on doing good thorough work which can not be successfully criticized from a pathological or surgical standpoint, and not enough attention given to the patient himself and his ability to withstand the treatment. Let the patient's general condition be the dictum occasionally in directing the course of procedure in gall bladder surgery. Cholecystotomy, in gall bladder surgery occupies the same position to cholecystectomy as does ligation of the thyroid vessels to thyroidectomy.

OPERATION.

I shall make no attempt to give a detailed description of the various steps in the operative procedures, but refer you to any good works upon the subject. I merely want to emphasize two or three points. First, place the patient in the proper position on the table with the middle of his back slightly arched forward. Second, make an incision which gives the best possible exposure to the bladder and ducts. I prefer a vertical incision through the outer part of the right rectus muscle, extending this when necessary upward and inward parallel with the costal margin (Mayo Robson's). Third, in gall bladder drainage I believe much good is accomplished by daily irrigations of the bladder with normal salt solution after the drainage tube has been removed.

Erysipelas Complicating Suppurative Otitis Media, Reporting a Case

H. L. CHAMBERS, M. S., M. D., Lawrence

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

Erysipelas seems not to have the vital interest for the profession that it formerly had, it being one of the group of dangerous diseases that is rapidly losing its power to harm and to alarm. While we all respect it and are careful about it, we are not terrified by it, and it does not cause among us the near panic that it did in a former generation. Instead of the old mortality of around eight per cent, we now have mortality that is almost nothing, but it still remains a serious disease when developed in those at the extremes of life.

When arising as a complication it will likely be distinctly alarming and may, of course, prove fatal, though I have never seen it do so and have come thus to think of a complicating erysipelas as one less dangerous than one that has the entire field to itself. On the other hand, no one should get the notion that this infection when developed as a complication will always or even usually have a favorable influence on the original trouble. Occasionally an epithelioma appears to have been destroyed by erysipelas, but it always increases the gravity of wounds, and modifies unfavorably the prognosis in all the common forms of infection. In the convalescence period of any operation, erysipelas will make the prognosis for ultimate recovery less favorable, and will increase the probability of making such convalescence longer and less pleasant while it lasts.

In view of these facts, a recent case wherein a double acute suppurative otitis media with conditions that made a diagnosis of double acute mastoiditis seem probable, and which developed an erysipelas and recovered in an unexpected way and in a surprisingly short time, may be of some interest.

On Feb. 22, Mrs. E. aet. 62, a woman of plump habit and cheerful disposition, came to the hospital suffering an acute suppurative otitis media (right) with edema over the mastoid, tenderness over the tip and on deep pressure over the mastoid antrum. Ear was draining freely and not so very painful, though there was

a history of illness for a week with days of high temperature and periods of very great pain which had disappeared when the drainage began. Ear was cleaned and absorbent dressing placed over it. There was moderate pain in left ear which in six hours became so severe and the membrane so deeply congested that I deemed a paracentesis indicated and did one. There was now no nausea nor dizziness, though there had been both at times during the previous week of illness. Temperature during this day was never above 98.6 F. Pulse was around 90. With the help of a little morphine, sleep that night was fairly good and next morning temperature was 97.5, pulse 96, drainage good, especially from right ear, and mastoid tenderness somewhat less. Blood count showed 71% polys, 10000 whites in all. Right ear draining freely, left not so much. An argyrol wick was put into left one. At 8:30 a. m., Feb. 24, temp. 99.2, pulse 100, free drainage, reasonably good night, right mastoid tenderness a little less. At 2:00 p. m. the temperature had reached 102 F., came down a degree, but was back up to this point at 9:00 p. m. Cloudy, acid urine voided, had a specific gravity of 1021, and showed no albumen or sugar. Both mastoids are now decidedly tender, the drainage is less and patient is drowsy without any medication. Double mastoid exenteration is thought to be necessary, but is put off for a few hours so that some relatives may be consulted or notified. At 8:00 next a. m., patient looks a little groggy, but insists that she feels the best she has at any time. Has slept well all night, bowels moved freely by enema, both ears again discharging freely, but both mastoid tips still very tender. Temperature is 99. 2, and pulse 72 (beginning basilar meningitis?) and a new thing has appeared—the left pinna is somewhat red, swollen and tender. At 9:00 p. m. of this day the tongue showed less coat, patient reported herself as still expecting to recover without any operation, and left ear had practically ceased to discharge. At 9:30 a. m. of Feb. 26, left external ear is somewhat improved, there is a little drainage from it, and right ear is draining less and is less tender over the mastoid. Temperature 99, pulse 84. At 9:30 p. m. temperature is up to 103, pulse 108, there is or has been a slight

chilliness, white cell count 12600. Local conditions in both ears appear to be improving, but there is still tenderness and edema over both mastoids, being now more marked over the left. The redness and swelling of the left pinna has spread forward and inward till it now involves the nose and part of the right cheek. Blebs of various sizes have appeared in it, altogether rendering the diagnosis of it easy and clinically definite. A consultant of wide experience at this time said he felt sure the left mastoid would require opening, but advised waiting till the erysipelas had quieted down unless something about the case became urgent. From this point on the ear conditions made a steady improvement and the erysipelas ran about its typical course. Temperature would be under 100 in the morning, and above 103 in the evening. Highest temperature reached were 103.4, with pulse 106, which were attained on both Feb. 27 and 28. No discharge from left ear after the 27th and not much from the right, though both mastoids were still tender. This tenderness is much less on the 29th and the skin infection is also noticeably improved. On the evening of this day there is no tenderness over left mastoid—no discharge from it for three days—and right seems no worse, but temperature is again up to 103, pulse 100, and respirations are 30, this being the first time there was any disturbance of pulse-respiration ratio. On March 1, the temperature reached 103, and pulse 100, but there was no halt in the ear improvement. On March 2, the right ear ceased to drain and two days later the mastoid tenderness disappeared. On March 5, the left tympanic membrane looks normal, the right bulges a little and is somewhat congested, but there is no discharge and no pain. The edema in the skin has recovered and the desquamation is about completed. The infection had begun in the left auricle, had spread to the surrounding skin, stopping along the border of the hair, did not go far down the neck, but went across the face and forehead, covered the right ear and the glabrous region about it, and finally stopped there. The edema of the eyelids and over the right mastoid was the last to go. This woman now felt well and looked to be safely convalescent, so she was allowed to return to her

home. Ten days later she sent an enthusiastic report claiming a pleasant convalescence with rapidly returning strength, and no return of any unpleasant symptoms.

Summarizing a little, I may say that:

1. These ears surprised me by the speed of their healing,—the right draining for only about fourteen days in all and the left for only six days.
2. The mastoids apparently recovered, at least sufficiently to be safe, when they might easily have gone on to suppuration and operation.
3. The erysipelas was rather milder than is to be expected in one of this age.
4. A proper query is: did the skin infection act as a vaccine to the ear suppuration?

—R—

Syphilis of the Nervous System

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PART I. DIAGNOSIS.

There are about 10,000,000 cases of syphilis in the United States, according to authoritative estimates. About 10% of the population, both of the world and of our country, are said to be syphilitic. Now if only one in ten of these syphilitic infections involved the nervous system, we must think of a round million of cases of neurosyphilis in this country. This means roughly 20,000 neurosyphilitics for Kansas.

It must be obvious that any disease so abundant as this, and as terrible as it is, should be well known to every physician. The sad truth is, however, that neurosyphilis, at least is *not* well known to us all. Until 1913 there was not a single book in the English language devoted to the subject, and even now there are but two, one being a translation of a German book. Many textbooks deal with it more or less fully, but few of them put the proper emphasis on the most important points. Not one of them really presents the immensity of the problem.

Syphilis starts as a local infection. In a few weeks it becomes a generalized infection. Thus, early in its course it involves or may involve every part of the body, the nervous system included. Symptoms of nervous system involvement do not usually appear in this early

stage (although they sometimes do), but they can often be found by careful search even when not conspicuous. For example, it has been found that the spinal fluid of patients who have the skin rash and other signs and symptoms of "secondary syphilis" usually contains evidences of inflammation. Meningitis and other acute manifestations of this involvement sometimes occur.

Usually, however, after the spirochetes which cause the disease have been disseminated by the blood to all parts of the body, and after the preliminary "general" reaction, the infection passes from an acute to a chronic stage, and for a long time the organisms grow and destroy tissue silently, without serious manifest symptoms, and even without any. If there are symptoms, they are of "visceral lesions," or "vascular lesions." For example, cirrhosis of the liver, iritis, osteomyelitis, aneurysm, etc., may develop. But nothing is heard from the nervous system. The patient is as alert, as active, and as sane as any one, and no one (not even the patient) would ever suspect that within his brain and spinal cord an infection was slowly but steadily multiplying and inflicting terrible damage.

Suddenly this damage becomes *apparent. A physical or mental overstrain, a bad cold, an unusual worry, or sometimes nothing at all, seems to precipitate symptoms of the processes which have long lain latent in the brain and spinal cord. Years after the primary infection symptoms of paralysis of mind or body develop, sometimes slowly and sometimes with great rapidity, and then follows a steady decline and eventual death.

All of which is quite bad enough. There is more to the tale, however. During this long latent period, lasting from 5 to 40 years, the patient (usually unaware that he is a syphilitic) marries, infects his wife, and begets children, who are born with hereditary syphilis. Then the process of syphilitic infection and destruction of tissue begins in wife and children, and proceeds to ruin their bodies and lives. There are numerous cases in my files where syphilis in

the parent was first suspected only because we found syphilis of the brain of a child.

But there is an encouraging side to this dark story. Syphilis is one of the diseases for which we have a treatment which attacks and kills the causative organisms. Taken in time, syphilis can be cured. When it has invaded the nervous system, the difficulties are greater, the process longer, the chances poorer, but in many instances it is still to be considered curable. But in the last stages, which are those in which it is now usually first recognized, it is nearly always beyond the reach of effective treatment. In a word, then, like cancer, it is a question of early diagnosis, effective treatment; late diagnosis, hopelessness.

Summarized, then, we may think of many cases of syphilis, some of which come to every doctor in every county, infected with primary syphilis years and years ago, now suffering with syphilis of the nervous system, usually unknown to themselves, but suddenly to flare up with progressive and terrible manifestations; not, however, until wife and children have in most cases been infected. *All of these need but to be recognized early to have a fair hope of successful treatment*

Syphilis of the nervous system, for these reasons, should be the first consideration in the differential diagnosis of any and every nervous and mental case. This was the first principle of the scheme for diagnosis by orderly exclusion applied to mental diseases by the eminent and late Ernest Elmer Southard, who also wrote the only American book on syphilis of the nervous system.

CLINICAL TYPES.

Bear in mind that the organism causing syphilis, the *Treponema* (or *Spirochaeta*) *pallida*, is carried by the lymph or blood streams to every part of the body. This means it is carried to the brain and to the spinal cord. Most of the foci or infection die out; but neurosyphilis is concerned with those cases in which some of the infecting organisms lodged in the brain, spinal cord, or peripheral nerves persist in life and activity and reproduction. The various clinical types of syphilis of the nervous system are dependent upon the location of the main attack. The whole nervous system is usually attacked

* (It should be remembered that not all syphilitics become neurosyphilitics. The nervous system is usually involved during the earlier stages, but it then usually dies out except in a definite proportion, perhaps 10% or less, and it is in these in whom the later catastrophes of "neurosyphilis" occur.)

in every case in which any of it suffers, but usually one part is more severely injured than another and this has given rise to clinical groupings based on these various combinations. Thus if the spinal cord is attacked chiefly, we see "locomotor ataxia," with a minimum of mental symptoms (sometimes none, sometimes many), and if the brain is the chief point of attack, we may see an "insanity" without many (sometimes almost no) symptoms of spinal cord injury.

On this basis we may classify neurosyphilis, for purposes of convenience, into those showing chiefly—

I. BRAIN involvement (including meninges).

II. SPINAL CORD involvement (including meninges).

III. NERVE involvement (meaning the peripheral nerves).

Under each of these there may be listed the three main types of pathological change found, *i. e.*, connective tissue lesion or gumma, vascular lesion (aneurysm, thrombus, rupture, etc.) and parenchymal lesion (*i. e.*, destruction of nerve cells).

Each of these will now be briefly described and illustrated.

I. BRAIN SYPHILIS.

(a) Gummatous growth.

(b) Blood vessel injury, with hemorrhage, etc.

(c) Parenchymal tissue injury (perhaps really a lesion of the smallest blood vessels, causing cell starvation).

Case 1. To illustrate a *gumma of the brain*, is taken from Dr. Southard's book, previously mentioned. A photograph of this gumma in Dr. Southard's hands, hangs on my office wall.

Four months before we saw him, David T. had lost his job, work being scarce, 'twas said. (Probably he was doing inferior work.) He began to have excruciating pains in his head, and to be irritable and forgetful. Then it was noticed he dragged his legs in walking, and his vision became so poor he could scarcely recognize any one. He rapidly became more and more demented (which means a general loss of all mental faculties) and he lay insensible and unobserving on his bed. An examination showed blindness, deafness, absent knee-jerks and arm-jerks ("reflexes") and this profound mental darkness. The Wassermann test on the spinal

fluid was negative, but on the blood serum positive. Shortly afterwards he died, and an autopsy confirmed the diagnosis of brain syphilis, revealing a large gumma plastered against the side of the brain.

Gumma of the brain is rare. It is one of the least frequent forms of intracranial neoplasm. But it should not be forgotten. The symptoms are usually those of increased intracranial pressure, *i. e.*, headache, vomiting, choked disc; decreasing vision, vertigo, sleeplessness or drowsiness, convulsions and paralysis, changes in the reflexes as usual in syphilis or as complicated by the localization of the gumma and finally mental symptoms, especially increasing irritability and decreasing memory and ability to think. (I am distinctly not trying to give all the possible symptoms of these types, but rather the more common symptoms. This article is intended above all to be practical and useful; hence, many fine distinctions and variations are unmentioned.)

Case 2, illustrating the *vascular injury form* of brain syphilis.

C. I. was in the early forties when he first noticed one day a numbness of one arm and leg. About the same time his vision in one eye decreased rapidly. Some weeks later he had two attacks of unconsciousness; it was unknown whether or not he had convulsions during these attacks. Then he was all right, without any treatment, for a year. One day, while walking home from church, he noticed that he could not move one leg very skillfully. It grew rapidly worse on the way home. He fell down repeatedly, and finally could go no further. An ambulance picked him up. For weeks he lay in bed, completely paralyzed. Then he slowly improved under treatment, only to have another "stroke" and return to his bed. There he lay for year after year, helpless, hopeless. Some of the laboratory signs were typical of neurosyphilis, others were not. The diagnosis was unquestionable, however.

As a matter of fact, we made a special effort to help this man even although his case looked hopeless because of the long duration of symptoms. We prepared some arsphenaminized serum and after trephining his skull injected this into the ventricles of the brain. He had five such treatments. To the amazement

of us all, he was then able to get out of his bed and hobble about the hospital, which was the first time he had even been upon his feet in three years. This was of course very unusual. In the adjoining bed lay Harry (Case 3), a man 12 years younger, who three years previously had come home from work feeling perfectly well, ate supper, felt dizzy, nauseated, vomited once, lay down on the sofa and never rose again. He was utterly paralyzed on both sides, and his speech was badly affected. He was treated just as was C. I., but showed no improvement whatever.

The vascular type of brain syphilis is characterized by injury to fairly large vessels of the brain with resultant aneurysm or hemorrhage. This causes brain tissue destruction, and one sees the same symptoms seen in cerebral hemorrhage or apoplexy due to any other or idiopathic causes. Paralysis is by all means the most frequent signs, and sudden paralysis occurring in young adults should always raise the suspicion of syphilis. These cases show the same general symptoms and signs as mentioned under the discussion of brain gummata, *i. e.*, they have disorders of pupils and reflexes, convulsions, visual and auditory loss, etc. They usually show relatively little mental change. The diagnosis is often confused by the fact that they are more apt to have a negative Wassermann on both blood and spinal fluid than any other type of neurosyphilis.

Case 4, to illustrate the parenchymal injury form of Brain syphilis. (Commonly called "General Paresis," or "General Paralysis," or "Dementia paralytica.")

Mr. Brown had influenza during the recent epidemic. He had always been hale and hearty. During his attack of "flu" he was delirious. His delirium did not disappear when the fever abated, but he continued to think the Virgin Mary was talking to him, and he was irritable and resistive. Some times he would think he was being poisoned, and at other times that he was about to die; he became very blue and depressed. Although it was first thought to be merely a continuation of the delirium, the doctor wisely suspected that it was more than a fever delirium. Our examination of his nervous system revealed absent reflexes, numerous abnor-

mal mental symptoms, and positive laboratory tests for brain syphilis.

Case 5, illustrating the same group.

Jacob was a prosperous and successful merchant. He made a blunder in a small deal, and began to worry about it. He worried more and more, and became so depressed that his wife insisted upon his letting her help him. She found that he was making many mistakes in keeping his accounts. She thought it was simply because of his "melancholia," so she called the doctor, who agreed with her and sent him away for a trip. But this trip only made him worse, as trips usually do make nervous patients worse, and he came back feeling more depressed than ever. He was then sent to us for examination, and we found altered reflexes, pupils that did not react to light, a grossly defective memory, a great loss in calculating ability, and a deep depression of spirits (melancholy, but not melancholia).

The laboratory tests confirmed a diagnosis of "General paresis."

(In regard to this case, I think I shall never forget how this man's wife, when told the nature of her husband's trouble, with the advice that she be examined before it was too late to give her treatment if she needed it, sobbed and cried, saying "He was always so good, my man was, so good . . . They made fun of him, the men did; they said he was sissy and never went with the girls. I know he never had a bad disease because he never did wrong. He couldn't have syphilis; he just couldn't;")

Case 6, illustrating the same. A woman brought her husband in because he said he felt sick, and gave no very good description of it, or reasons for it. He had complained of pains here and pains there, and "funny feelings" one place and another, and he didn't sleep and couldn't eat and had headaches and was dizzy, and all the other complaints and laments of the average "hysterical" or "psychoneurotic" patient.

Careful examination, however, revealed evidences of general paresis. I give the case here because of the fact that cases are very frequently called "hysteria" and "neurasthenia" which are really cases of general paresis.

Case 7, illustrating the same. Mrs. X was a very prominent woman in a good-sized city.

She was said to be the brightest woman in town, and really ran the Chamber of Commerce. One day she did not come to work. She had recently complained of headaches, so it was supposed that she was simply taking a day off. But the next day she was absent again, and it was found that she had not been home. She was found in a park, under some bushes, her hair down, her clothing wet, and she quite unable to give any explanation of herself. She looked at them vacantly, and muttered something they couldn't understand. She was taken to the hospital where I saw her. Physically she was almost perfect; there were few neurological abnormalities. A very careful examination of the pupils showed a sluggish reaction through a smaller distance than normal. We suspected brain syphilis of the "general paresis" type, and laboratory findings confirmed this.

Case 8, illustrating the same. Not long ago there came to my office a prominent lawyer of western Kansas. He shuffled into the examination room, followed by his anxious little wife, who had to take complete charge of him. He was a maudlin, silly, irritable *old* man of only 45 years, who could no longer write his name or talk so that he could be understood. It was a very obvious case of general paresis. Inasmuch as it never helps any, I scarcely ever ask my patients if they have ever had syphilis. (They usually don't know.) I did ask this old fellow, more to see what reaction I would get than anything else, with very unexpected results. He flared up in a burst of typical neurosyphilitic anger, and announced he was going to sue me for insulting him. He went down the street to a lawyer's office, told them he was a big land owner, had a huge law practice, was worth thousands of dollars, was in the best of health, and had just been mortally insulted by a doctor whom he was now going to sue, etc. (It perhaps should be explained that instead of being rich and powerful as he thought, he had really been discharged from the last position he had been relegated to as utterly incompetent, and his family were on the verge of poverty.)

These cases illustrate the many forms of the parenchymal type of syphilitic brain disease. It is very common in the state hospitals where

it can be seen in any and all forms. The symptoms are multitudinous, and run all the way from mild changes in disposition to violent outbreaks, homicidal attempts, and other terrible manifestations. With these mental changes there are nearly always changes in the pupillary reactions and the reflexes (knee-jerks, etc.), and practically always positive reactions in the spinal fluid and blood serum examinations (Wassermann and other tests).

For convenience, completeness and ready reference I shall list the more important symptoms and the conventional types here.

Tabulated Symptoms of Brain Syphilis, parietic type:

1. Headache, dizziness, tired feeling, and other symptoms often called "neurasthenic."
2. Forgetfulness.
3. Irritability.
4. Depression, melancholy.
5. Elation, euphoria.
6. Stupidity, dullness.
7. Stupor or unconsciousness.
8. Convulsions.
9. Delusions of all sorts.
10. Muscular weakness and paralyses.
11. Trembling, staggering, and awkwardness.
12. Speech and writing defects.
13. Judgment impairment, especially in business and social matters, causing bad deals and bad "breaks."
14. Abnormalities of size, shape and reaction of pupils.
15. Disorders of other reflexes; for example, the knee-jerks may be exaggerated, diminished, lost altogether, unequal, or normal.

The four conventional types of general paresis:

1. The "demented form" (See Case 5 above). Course about 2 years.
2. The "expansive form" (See Case 8 above). Course 3 to 5 years.
3. The "agitated form" (See Case 7 above). Course about 1 year.
4. The "depressed form" (See Case 9 above). Course less than 2 years.

Much more important than these symptom and species lists, however, is the point that the symptoms may be of any known kind. Patients

are sometimes operated upon for appendicitis when the real diagnosis is brain syphilis!

There are many cases in which only the laboratory examinations will decide. This is the crowning reason why the diagnosis of every mental case should first consider neurosyphilis. Remember the possibility and keep a syphilis-suspicious mind!

To emphasize some of the difficulties of diagnosing neurosyphilis, I will state some of the paradoxes and puzzles sometimes seen. Illustrations of these could be furnished in abundance if space would permit.

1. The Wassermann may be persistently negative on even an advanced case of brain syphilis, any type.

2. Some "insanities" occur in syphilitic patients which are *not* instances of brain syphilis.

3. Brain syphilis may look exactly like dementia praecox. I have known several cases in which even experts could not decide. In fact, I saw one with Dr. M. L. Perry, superintendent of the Topeka State Hospital, and other members of that staff in which none of us were certain of the diagnosis between these two.

4. "Epilepsy" is sometimes really a form of brain syphilis.

5. Diabetes frequently complicates brain syphilis of the paretic type.

6. The novelist, O. Henry, the philosopher, Nietzsche, and many other famous men died, after fruitful lives, of brain syphilis, according to some authorities.

7. Many people develop brain syphilis who are "absolutely sure" that they never had syphilis.

8. Brain syphilis of all forms may develop in children, either in the acquired or in the hereditary form. (I have in my files a case of a lad of 19 who died of general paresis, not inherited, but acquired, from an older brother with whom he slept as a boy.)

II. SPINAL CORD SYPHILIS.

"Locomotor ataxia," or tabes dorsalis, is by all means the most frequent form of spinal cord syphilis. It often occurs in combination with brain syphilis of one form or another, but it is frequently seen alone.

I quote here a list of symptoms in tabes dor-

salis in the order of their frequency (as observed in 250 cases):

1. Romberg sign.
2. Absent knee-jerks.
3. Lancinating pains.
4. Staggering gait.
5. Argyll-Robertson pupil.
6. Ataxia in upper extremities.
7. Spineter disturbances.
8. Sensory disturbances.
9. Visual disturbances.
10. Paresthesias ("numbness," etc).
11. Girdle sense.
12. Strabismus.
13. Visceral crises.
14. Loss of sexual desire.
15. Charcot joints.

One typical illustrative case will suffice:

Case 9. Mrs. S. was the object of much pity among all her friends. As a young woman she had been popular and talented. She was still young when she first noticed symptoms of her present trouble. At that time there were joint pains, backaches, and stabbing pains in the legs. She was treated by many physicians, and drank many gallons of otherwise harmless mineral water at certain well known "Springs;" she took baths and rubbed in liniments, and ate pounds and pounds of aspirin, and other salicylates. Of course she visited osteopaths and chiropractors galore.

After nearly 10 years of suffering, with diagnoses of "neuritis," "rheumatism," "auto-intoxication," etc., she had developed very conspicuous incoordination, so that she staggered in walking at night, and was rather clumsy even in the daytime. She wore double spectacles and even then saw poorly. She was the victim of "acute indigestion" (of course these were really attacks of gastric crises), and had been operated upon for gall-stones (which were not found, of course). In addition to all these symptoms, she occasionally lost control of her urine.

This case is so extreme that anyone might be justified in guessing the diagnosis without seeing the patient. The examination showed just what you would expect—severe incoordination, positive Romberg, altered reflexes, fixed pupils, etc. Of course, the laboratory findings on her

spinal fluid were strongly positive; her blood Wassermann was also positive. It was probably positive 10 years, even 15 years, before, had anyone ever taken the trouble to examine it.

And her form of syphilis of the spinal cord is syphilitic myelitis. This is comparable to the sudden paralyses sometimes seen during pregnancy, infections, etc., except that instead of some unknown toxin or infection causing the lesion, the organisms of syphilis cause it. The symptoms are just the same. For example:

Case 10. Mr. Hamilton was 35 years old. One day his bowels moved involuntarily, much to his surprise and mortification. For the next two weeks he was quite all right. Then as he was one day driving his wagon along the street, he found himself totally paralyzed below the waist. He was carried home, and has remained in this condition for the past two years. The legs are stuck out stiff and helpless; occasionally they tremble and jerk and with these attacks the poor fellow suffers greatly. He has no control over bowels or urine. His vision is rapidly failing, and lately mental symptoms have been noticed although these are very trivial compared to the severe spinal cord symptoms.

III. NERVE SYPHILIS.

The peripheral nerves are attacked by syphilis less frequently than the spinal cord and brain; however, there are cases of true "syphilitic neuritis." The neuritis may result in pain (if a sensory nerve is attacked), paralysis (if a motor nerve is attacked), or loss of special function (as when the auditory nerve is attacked).

Case 11, illustrating peripheral nerve syphilis.

Mrs. Smith woke up one morning with one side of her face paralyzed. She was unable to close her eye or to properly close her mouth, and attempts at smiling, whistling, etc., made her face look deformed and distorted through the absence of motion on the left side.

She went to her doctor who made a diagnosis of facial paralysis, *i. e.*, paralysis of the facial or seventh cranial nerve (often called Bell's palsy). He gave her a "tonic," told her it would "get all right," and sent her on her way rejoicing.

Now, there is a "Bell's palsy" which is quite

independent of syphilis, a paralysis of the facial nerve which is brought about in some mysterious way about which we know little except that it is *not* syphilitic. The doctor knew this, and made a guess; but in this instance his guess was wrong. The paralysis did not clear up, and she became dissatisfied and went to another doctor who had a blood Wassermann test made. This was reported positive. He prescribed antisyphilitic treatment and the paralysis disappeared.

Case 12. This man was 40 years old. Said he, "I never did see as well as other boys, and I think I have always been color blind. But for the past year or so my vision has been failing so fast I can scarcely see to read headlines." This was his only symptom, although examination revealed a few other findings clinching the diagnosis (chiefly altered reflexes). The blindness was due to syphilis of the optic nerves, causing an optic neuritis, and then an optic (nerve) atrophy. This man responded very well indeed to intensive treatment. Besides intravenous medication, we gave him intracranial injections of serum through a trephine opening, directly into the ventricles of the brain.

PRACTICAL INDICATIONS.

I have pointed out the wide clinical variety of neurosyphilis, the many symptoms and signs and the many combinations, the puzzles and paradoxes, the doubts and difficulties. The moral of it all would seem to be that in the diagnosis of neurosyphilis, which we owe our patient because of the possibility of benefit by early treatment, every clinical aid must be secured. History, physical examination, neurological examination, mental tests, and above all, laboratory tests must be made and considered together.

All of these things are not always practicable. The average man in general practice is not equipped to make all these researches, nor can he afford the time in the average case. Yet, if he misses the diagnosis, he blames himself and suffers regrets that I propose he can circumvent. For *there are three simple measures which every physician can employ, and which will "catch" the great majority of cases of neurosyphilis.*

The first is to test the reaction of the pupils

to light. Irregular, or unequal pupils are suspicious, but pupils which react little or not at all to a ray of light are very strongly suggestive of syphilis of the nervous system.

Secondly, tap the patellar tendon. If the knee-jerks are absent, or unequal, you can be sure there is some serious disease of the nervous system, and syphilis may well be suspected (although of course there are other possibilities). If the knee-jerks are greatly diminished or greatly exaggerated, there may be serious nervous system disease, although it is not so strongly indicated as in the first instances. But it should make one suspicious.

Finally, take a specimen of blood and have a Wassermann test made on it. This is now done for you by the State, thanks to the efforts of Dr. Crumbine and the State Board of Health, in conjunction with the Federal Government (U. S. P. H. S.). Many syphilitics do not have positive Wassermans, but these missed because of this paradoxical "negative" will be a relatively small percentage. It is from this small percentage that the cases requiring the technique and equipment of the specialist in diagnosis are recruited.

Note.—The subjects of "Congenital Syphilis of the Nervous System," and also of "The Treatment of Neurosyphilis," will be dealt with in subsequent papers.

—R—

Large Ovarian Cyst with Co-existing Pregnancy; Report of a Case

J. ROTTER, M. D., Parsons

The following case is reported, as it presents interesting clinical features.

Mrs. H. W., aged 25, American of German descent, married nine months, occupation housewife and previous occupation stenographer, presented herself for examination on March 13, 1920. Her chief complaint was a gradual enlargement of the abdomen first noticed four years ago. She had slight dyspnoea within the last few months, with no digestive, respiratory, nor urinary disturbances. Her appetite was good, bowels regular, ability to sleep good, and weight during the last year stationary. Her family history was uneventful; she gave a history of measles and pneumonia at the age of two,

and influenza one year ago. Menstruation began at the age of thirteen, of the regular twenty-eight day type, the flow lasting about five days, a normal amount with no dysmenorrhœa, and no vaginal discharge. She gets just a little nervous two or three days before the onset of flow. Her last period was on December 6, 1920. Urination is five to six times daily, once or twice during the night.

The physical examination revealed the following: A well-nourished young woman, slightly dyspneic, rather pale, lungs and heart negative, breasts slightly enlarged, no marked pigmentation. The abdomen was distended, showing linea albicantæ; no irregularities were felt. Upon percussion the entire abdomen was dull. The vaginal examination showed the vaginal mucous membrane to be pale; the cervix was somewhat softer than normal. The uterus was enlarged and forced well down into the pelvis. There was no ballotment presumably on that account. There was no edema of the feet. The respiration was 21, pulse 75, temperature at 4 p. m., 99. The patient did not allow any blood examination. A single uncatheterized specimen of urine was examined with the following findings: Yellow and clear, acid reaction, specific gravity 1028, albumin negative, sugar negative, indican normal; microscopic examination negative.

A diagnosis of ovarian cyst was made with a possibility of co-existing pregnancy, of which the patient was advised. An operation was suggested to remove the growth, giving her a better chance to avoid any complications at the time of labor. The patient, however, refused the operation on account of the possibility of miscarriage.

She reappeared for examination on December 21, 1920. She was quite emaciated. Three months previously she had given birth to a perfectly normal child weighing eight pounds, which she was nursing. Her confinement had been normal. The examination made at this time showed the abdomen almost as large in size as on the previous examination. All other findings were the same except for a slight trace of sugar in the urine. She had decided to submit to an operation which was done under one per cent novocain anesthesia. The abdomen was opened in the mid-line. Some free, pale, straw-

colored fluid was found. A large, dark, bluish cyst connected with the left ovary, including an adherent left tube, about 10 cm. long and about 1.5 cm. in diameter, was removed. An examination of the cyst showed it to be unilocular, of rich blood supply, filled with old clotted blood, and weighing 4.6 kilograms (ten and one-eighth pounds). The patient made an uneventful recovery and was discharged from the hospital at the end of two weeks.

—R—

LAW FOR THE DOCTOR

LESLIE CHILDS

The Application of a Domestic Remedy for a Fee as Practicing Medicine

(Copyright 1920 by Leslie Childs)

One Joseph Huff, a farmer, was indicated under the Kansas statute for the regulation of the practice of medicine, for practicing medicine without a license. Huff was convicted in the lower court and prosecuted an appeal to the Supreme Court. The case is entitled *State of Kansas vs. Joseph Huff*, 96 Kan., 632, and the facts upon which the indictment was predicated were in substance as follows:

Huff claimed that he had discovered a remedy for cancer. This alleged remedy was manufactured by him from vegetables grown on his farm, and at the time of his trial he stated that he had treated from fifty to seventy-five different patients. One of these patients was a Mrs. Stewart, who was named in the indictment.

The evidence tended to show that he treated Mrs. Stewart under a contract by the terms of which he was to receive one hundred dollars. He had received fifty dollars of this amount when indicted, and was to have been paid the balance when a cure had been effected. In describing his method of treatment the defendant said:

"I take a little stick and get a little medicine on it and put it on the cancer, the diseased part and that works from fifteen minutes to half an hour, until it works the strength out of the medicine, and I then clean that off and apply it again." The report fails to show how efficacious this treatment was, and is taken up with a discussion of the question as to whether, under the Kansas act, this application of a domestic rem-

edy for a fee amounted to a violation of the statute in question.

The section of the act under which the indictment was laid reads in part as follows: "* * * any person who shall practice medicine * * * in the state of Kansas without having received and recorded a certificate under the provisions of this Act, * * * shall be deemed guilty of a misdemeanor.

"Any person shall be regarded as practicing medicine and surgery, within the meaning of this Act, who shall prescribe, or who shall recommend for a fee, for the like use, of any drug or medicine. * * * This Act shall not apply to any commissioned medical officer of the United States, Army, Navy, or Marine service, * * * nor shall anything in this Act apply to the administration of domestic medicines, nor to prohibit gratuitous services."

In the defendant's appeal to the Supreme Court, he assigned a number of technical errors, alleged to have been committed in the lower court, which were overruled. The most important error assigned, in so far as this article is concerned, was one on an instruction given by the lower court in respect to the scope of the term, "administration of domestic medicines."

The lower court instructed the jury that "the term 'domestic medicine,' as used in this law, means medicine as practiced by unprofessional persons in their own families or households." The Supreme Court reviewed the authorities at length to determine whether the defendant could have been prejudiced by this instruction. In conclusion it was stated,

"A non-professional person is permitted, under the law, to administer domestic medicines, but not to take pay for recommending their use. The theory of the state is that one who proposes to ask and receive compensation for advice as to the use of medicines thereby holds himself out as possessed of special and peculiar information on the subject, and that it is the province of the state to see that he possesses it, or, in default of proof thereof, to prevent his making the unfounded claim a source of revenue. * * *. Under the defendant's own statement, he was guilty of the offense charged against him, if for a fee he recommended the use of his medi-

cine as a remedy for cancer, whether it was a 'domestic medicine' or not."

Holding that under the Kansas act it was not material whether the medicine was a domestic medicine or not, where it had been prescribed for a fee. For, granting it to be a domestic medicine, that fact would not constitute a defense. The judgment of conviction rendered in the lower court was thereupon affirmed.

—R—

Deaths

Charles M. Arbuthnot, Belleville, aged 68, died October 3. He was graduated from Jefferson Medical College in 1881.

Johannes Alfred Elmore, Osage City, aged 54, died at the Swedish Hospital, Kansas City, Mo., November 18, from carcinoma. He graduated from the Kansas Medical College, Topeka, in 1894.

Frank DeVilbis, Clyde, aged 61, died December 20, from pneumonia. He graduated from Missouri Medical College, St. Louis, in 1883. Was at one time a state senator.

John Wilson Sparks, Arkansas City, aged 79, died January 3. He was graduated from Rush Medical College in 1871.

William Scheider Shirk, McPherson, aged 42, died January 29 from cerebral hemorrhage. He graduated from Barnes Medical College, St. Louis in 1901.

—R—

Aleukemic Leukemia With Unusual Skin Manifestations

In the case reported by M. A. Blankenhorn and Harry Goldblatt, Cleveland (Journal A. M. A., Feb. 26, 1921), the entire surface of the body, including the scalp, the soles, and palms, was covered with lesions of various kinds and shapes, ranging from miliary points to patches more than five cm. in diameter. The majority of them were purple, hemorrhage in appearance, and slightly elevated, thick and firm. Some of the lesions showed only extreme reddening, while in others there was a purple that had faded to a brown. Some of them were desquamated with a brown dry scale, while others had superficial layers elevated by a sticky layer of creamy

pus. None were deeply ulcerated, and all showed varying stages and degrees of filtration and hemorrhage. In particular, no single lesion could be said to be a simple purpura unaccompanied by infiltration. The membranes of the mouth and conjunctivae showed the same lesions, but here superficial ulceration, complicated by secondary infection and encrusting, was more marked.

—R—

Necessity of Clear Thinking in Milk Modification

Lewis Webb Hill, Boston (Journal A. M. A., March 5, 1921), emphasizes strongly the need for every practitioner's having a good working knowledge of infant feeding, because a large proportion of the babies in this country are fed under the advice of general practitioners. On account of the numerous methods of milk modification recommended and the calculation involved, many men become discouraged with the subject, lose interest in it, and give it little attention. The baby as a consequence suffers. The practitioner must have clearly fixed in his mind the elementary nature of milk; he must not look on it as milk, but must look on it as being made up of fat, sugar, protein, salts and water. He must realize that disturbances of digestion arise from sugar or from protein or from improper combinations of these elements, and that, therefore, he must take into account the amounts of these elements that he is feeding to any baby, and be able to vary each one of them at will in any mixture he offers. He must also have some numerical method of expressing these amounts. It is this necessity for clear thinking with regard to milk modification that Hill discusses particularly. There are several methods of milk modification in good use, and it is not of great importance which one is used, provided the physician gives enough food in total quantity and the proper combination of the individual food elements to suit the digestion of the baby he is dealing with, and that he knows approximately the amount of each food element in the mixture, in order that he may vary these quantities at will, that he may be able to proceed in a rational manner, and that he may be able to express clearly to others, in the exact language of figures, what he has done. The modification of milk is the mechanical part of infant feeding. It is not the calculation that is difficult—any experienced medical student can quickly learn milk modification and calculation; the part of infant feeding that is difficult, that requires judgment and experience, that often eludes many practitioners in spite of years of experience with many babies, is knowing when to feed what.

BELL MEMORIAL HOSPITAL CLINICS

Out-Patient Clinic of Dr. Logan Clendenen

OESOPHAGEAL DISEASE

A. M., female, age 29, comes complaining of not being able to swallow her food comfortably. She states that as it feels to her the food goes part way down and sticks at a point about at the level of the end of the sternum. She has to drink water to get it to go into the stomach. She also has indigestion. This consists of discomfort and feeling of a weight after eating, the discomfort being located in the epigastrium.

That is about all the positive data we have to go on.

The family history is negative, and so is the past history. Particular attention was paid to the question of having swallowed any corrosive substance before these symptoms began and none was obtained.

These gentlemen have made a physical examination without finding any important deviation from the normal. It is worth making par-

ticular mention of the fact that she is well nourished and in good weight although she says she has lost a good deal in the last six months. This is significant because we must rule out cancer of the oesophagus. The loss of weight she has sustained may easily be due to lack of eating from the discomfort it causes.

The history is a very characteristic one for an obstruction of the oesophagus. The x-ray should help us out in the diagnosis. The plate, as you see, shows a dilatation of the oesophagus. It does not show by any means a characteristic obstruction or narrowing of the shadow, but I take this to be due to some condition present when the picture was taken. It is evident that there is no filling defect, no carcinoma of the oesophagus. (Fig. 1.) I believe the plate was taken with the patient lying down and that the stomach shadow is in the way of our seeing the end of the oesophagus, so that the characteristic pinched-off appearance of a typical cardio-spasm is not present. Most plates of the oesophagus are taken with the patient standing.

An interesting feature, and one the significance of which is doubtful, is that the laboratory reports a four plus positive Wassermann.

An olive-pointed oesophageal bougie passed into the oesophagus, passed apparently into the stomach, but there is a distinct sense of resistance at a point corresponding to the cardia. It feels as if a hand grasped the tip of the bougie and held it for a moment, and that you pushed the bougie out of its grasp against its will. This finding was confirmed last week by one of our senior students, Miss Kaufman. We have passed the bougie several times, a week apart, and each time with temporary relief, for a day or two, but the symptoms return each time.

We, therefore, last week, used the proper method of treatment for these cases, the Plummer dilator. This instrument, devised by Dr. Plummer of the Mayo clinic, who took his original idea from an instrument devised by Dr. Sippy, who took *his* original idea from an instrument devised by Dr. Russel, of London, consists of a hollow staff, with an olive tip, behind which is a silk covered bag. The bag can be dilated by water pressure, controlled by a pressure gauge. The bag is fixed at the cardia, and the water allowed to flow in slowly

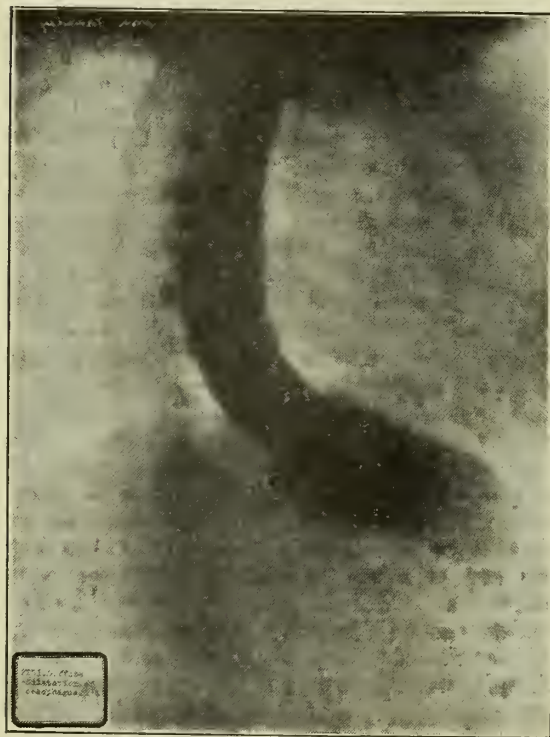


Fig. 1.—Diffuse Dilatation of the Oesophagus.

until a pressure of 20 or 30 mm. is reached. When this was done last week the patient complained a good deal of pain and afterwards sent for me to come and see her, on account of severe pain. I did not hesitate to go because I once saw a specimen in the Museum of the

the oesophagus itself, but also, in order to nourish the patient, to make an artificial opening into the stomach—the operation of gastrostomy. Here is a table of the four common causes of stricture of the oesophagus with diagnostic points and method of treatment of each group:

STENOSIS OF THE OESOPHAGUS

CAUSE	DIAGNOSIS	TREATMENT.
CANCER OF OESOPHAGUS	Filling defect with x-ray.	Radium applications to oesophagus. Gastrostomy.
CICATRIZATION FOLLOWING CHEMICAL CAUTERIZATION OR ULCERATION	History of swallowing lye or other poison. X-ray shows smooth cicatrix with dilatation above.	Dilatation of stricture with olive tip bougies guided by swallowed thread. May be controlled by oesophagoscope if necessary.
SYPHILIS	Positive Wassermann. X-ray shows smooth cicatrix or uniform dilatation.	Anti syphilitic treatment. Dilatation of oesophagus with bougies.
CARDIOSPASM	X-ray shows spasm just at diaphragmatic ring, with dilatation above it.	Use of Plummer dilator. Atropine, and other anti-spasmodics.

Roosevelt Hospital in New York of an oesophagus which had been ruptured by a procedure of this kind. All the way out to this house, which was in a rather distant and not very elegant part of the city, I saw a vision only of the specimen of that ruptured oesophagus. However, we had not done any damage, and found a very interesting condition.

Shee was having a great deal of pain and had vomited once or twice. The pain was not only under the sternum, but also under the right rib over the liver area and in the right shoulder blade. Her pulse was strong and regular and the temperature normal. My interpretation of the attack was that our instrumentation had precipitated a gallstone colic. Since she recovered from this attack she has been much better, so far as the oesophagus is concerned.

So much for the facts in the case.

It will serve very well to hang some comment about oesophageal obstruction in general. Aside from diverticula and other congenital anomalies of the oesophagus, and aside also from pressure stenosis of the oesophagus from extrinsic disease such as goitre, new growths of the mediastinum, the only diseases of the oesophagus are those which cause stricture. The treatment of these strictures varies considerably with the cause. In some cases it is necessary not only to treat

It is evident that our case belongs either to the last group or to the group of syphilitic lesions. Considering cardiospasm first, there has been much discussion as to the nature and cause of this curious malady. Plummer suggests the name "Diffuse dilatation of the oesophagus" for it rather than cardiospasm. Our case illustrates this feature of diffuse dilatation very well. As to the cause, opinions differ. Some authors believe that it is always due to disease of the stomach, such as ulcer or cancer. Certainly in ulcer there is frequently the symptom of pain behind the sternum, and delayed emptying of the oesophagus, caused by reflex spasm. This might easily become a permanent spasm. I am convinced that many cases of cardiospasm are of this nature. This very case, for instance, had an attack pointing to a diseased gall-bladder, which might reflexly cause a spasm of the lower end of the oesophagus. Other authors invoke that mystical condition called vagotonia, and tell us that these people are all vagotonic. It may be, and that the vagus causes these spasms. Personally the atmosphere of "vagotonia" has always been somewhat too rarefied for me to breathe in comfortably, and I am a little too material to make that diagnosis often. Other authors tell us this disease is a spasm of the diaphragm and is not a spasm of the oesophagus at all. Others assert that it is

a symptom of neurasthenia. There is no doubt that these patients are very frequently of a highly neurotic temperament.

What is the significance of the positive Wassermann in our case? In the first place this is not the ordinary form of syphilis of the oesophagus, with a hard definite cicatrix, the site of an old ulcer or gumma. But Dr. Hirsch, of New York, has described some cases of diffuse sclerosis of the oesophagus associated with syphilis of the stomach. The stomach is contracted and by its smallness, Dr. Hirsch thinks, holds the food in the oesophagus. The oesophagus is always diffusely dilated. The X-ray we have here and the positive Wassermann speak for such an explanation. But I am by no means satisfied with it. I have felt a bougie in situ in this patient and I am sure that there is a spasm of a very definite nature at the lower end of the oesophagus. It may be that on account of the position the patient was in, the X-ray does not show any stricture in this case we are considering. As I said above, the plate was probably taken with the patient in the dorsal position, and for that reason we do not see the constriction. At any rate before making a diagnosis of any other condition than cardiospasm, we will wait for another plate.

To sum up, remember that there is no class of patients that you can do more for than these strictures or spasms of the oesophagus. But in order to get good results you must make an exact diagnosis and apply the treatment that is suited to each particular case.

The following articles are interesting and are easily accessible in the library:

Plummer: Journal A. M. A., Feb. 25, 1911.

Plummer: Collected papers of St. Marys Hospital, 1905-1909.

Plummer: Journal A. M. A., June 29, 1912.

Held and Gross: Journal A. M. A., Jan. 22, 1916.

Lyon: Am. Jour. Med. Sci. 1917.

Angina Pectoris of Diabetes

The belief is held by Max Kahn, New York (Journal A. M. A., Feb. 26, 1921), that clinicians have not been impressed with the cardiovascular changes that are present in diabetes. He directs attention to angina pectoris, which is especially overlooked. A patient with normal

or low blood pressure frequently complains principally of attacks of angina pectoris. These anginal attacks do not seem to occur when the patient's glucose tolerance is not exceeded. A high blood sugar with glycosuria in such an individual will frequently cause the recurrence of the attack. It appears that the carbohydrate storage in parts of the heart has something to do with cardiac conductivity. It has been found that the fibres of the bundle of His are markedly richer in glycogen granules than the ordinary cardiac muscle fibers. It is logical to assume that in the condition of diabetes there is a lowering of the glycogen storage here as elsewhere in the body, with a resultant distinct disturbance in the nourishment of the cardiac musculature, terminating in myocardial pathologic changes. Cardiographically, a number of the diabetic patients suffering with this condition will show an inversion of the T wave in the third lead.

Indirect Expulsion of the Placenta

In 1919, Joseph L. Baer, Chicago, in The Journal, May 24, page 1543, described a method of expelling the placenta which is a reversion to Nature's spontaneous method, utilizing the full power of the abdominal muscles to drive the uterus down against the separated placenta and so expel it. The method is applicable only after separation has occurred, but even if used as a routine in all cases because of inability to recognize separation, its failure is harmless and can always be followed by a simple expression or a "Crede," as the case may require. An analysis of 400 consecutive cases (Journal A. M. A., Feb. 26, 1921) by the same author shows that the method is 90 per cent efficient in the hands of seventeen men of limited experience.

Perforations of Nasal Septum Due to Inhalation of Arsenous Oxid

L. G. Dunlap, Anaconda, Mont. (Journal A. M. A., Feb. 26, 1921), differs with Rothstein as to the theory that the perforations sustained by workers with arsenic are due to primary injury of the Kiesselbach area by the finger-nail in picking the nose, as occurs in tabetics. He is convinced that the inhalation of arsenous oxid and hydration to arsenous acid on this area of least resistance of the septal mucosa cause a tissue necrosis and defense reaction of hyperemia. Obstruction follows. This leads to a vigorous blowing of the nose, all of which factors form the basis of the original abrasion. Treatment consists of: (a) resection of cartilage, producing mucosa to mucosa approximation, or, in smaller perforations, (b) plastic operation or (c) a mechanical obturator to relieve the objectionable crusting.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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CHANGE OF DATE

A letter has just been received from the Secretary stating that Wichita would be unable to provide for the meeting of the State Society on the dates fixed by the Council; and that with the consent of the members of the Council the dates for the annual meeting have been changed to April 26, 27 and 28.

—R— The Medical School

The appropriation for the new building at Rosedale has been made and the future looks much brighter for the medical school than ever before. It is timely therefore that some time at least during the next meeting of the State Society at Wichita, should be given to a general discussion of the affairs of the school. We are assured that those in authority are anxious to make the school of the greatest possible service to the profession in the state. Suggestions have been made by a few, but it is quite important that the views of many should be expressed if the greater number are to be most efficiently served. It is therefore to be hoped that the Committee on Medical School will embody in the report it is expected to make some references at least to the plans already suggested, if for no other purpose than to stimulate a general discussion along this line. The medical school can be of some benefit to every physi-

cian in the state. It will be of great benefit to many if they will take advantage of the opportunities offered.

The faculty members are doing more now in an effort to co-operate with the profession in the state than at any previous time in the history of the school. The reports of the various county societies in this issue of the Journal will show these men are making a very definite, and we feel sure a very effective effort, to bring the profession into closer touch with the school. We note that members of the faculty have taken part in the programs of several county societies. We also note that they have been heartily welcomed and cordially thanked. No one can doubt that this is an effective way to widen the interest in the medical school and the work going on there. But the fact must not be overlooked that it also helps very materially to build up the county societies. When men are assured of a good program at each meeting of the county society they will attend if possible, and many will find in the fact that interesting programs are to be expected a very excellent reason to affiliate.

It is unnecessary to say that every county society could have interesting programs at every meeting if the members would take the time and expend the energy required for the preparation of papers and reports of cases, but few of them are willing to do this, and the programs are often incomplete on account of the failure of those who have been assigned places thereon.

Since the faculty of the medical school seems willing to supply lectures for the county society meetings, it is to be hoped that more of these organizations will take advantage of this effort to serve them.

The dean of the medical school is especially anxious to have the members of the society express their various opinions in regard to the best plans for best serving the profession. We hope this matter will be freely discussed at the state meeting, but at any rate the pages of the Journal will always be open to those who have suggestions to make.

—R— As It Is

He who writes the medical history of Kansas will need have much to say about the "schools"

of medicine for there was bitter warfare between them half a century ago. When the first (probably the second) medical practice act was passed, each "school" of practice was authorized to license candidates by examination. Then the fight began and the courts were called upon to decide the claims of each to the exclusive rights to grant licenses to practice. It was a great and interesting period in the history of the Kansas Medical Society. Its membership grew rapidly, but its prestige was promptly threatened by the combined forces of the Homeopaths and Eclectics. These organizations claimed that the Kansas Medical Society was unauthorized and incompetent because its charter was granted by the territorial legislature and had not been renewed by the state. The Supreme Court, however, decided in favor of the Kansas Medical Society and its territorial charter.

The reader of the medical history of Kansas will find little in the status of medicine today to correspond with its history. In looking over the directory, which will soon be ready for delivery, one is struck by the very large percent of the members of the Kansas Medical Society who are graduated from Eclectic and Homeopathic schools.

The reader of the medical history of Kansas will also observe the fact, also confirmed by the directory, that the school of graduation has little to do with the success of the practitioners in this state. A careful review of the history of the men now most prominent in the society and in the practice of medicine in the state will convince most any one that success has depended, not so much upon the source and character of the training one has had to start with, as upon the use he made of his training and the experience and accumulation of knowledge he subsequently acquired.

That is history, the history of medicine in Kansas for more than half a century. One cannot certainly say what the historian of the next half century will write, but he will probably be compelled to draw similar conclusions. There will be a vast difference, however, in the starting point from which success may be achieved.

Only the older men in the profession are able to compare the medical education of today with that of a half century past. The recent

graduate in medicine starts where the older men leave off. They have the benefit of a half century of very rapid progress, a period in which startling discoveries have been made and in which the scheme of medical education has been revolutionized. With standardized schools of medicine the graduates of today are started on an equal footing, but the historian of the next half century will also find that the successful men are those who have made the best use of this training and who have accumulated knowledge with experience.

—————R—————

CHIPS

A blood test was accepted as a proof of parentage by one of the Superior Courts in San Francisco, Judge Thomas F. Graham presiding. The blood test was made by Dr Albert Abrams, Professor of Pathology at Stanford University, on an order of the court and the doctor's findings were accepted by it. It was shown that the blood of the child corresponded with that of the mother and father, Paul Vittori. Vittori, who had disclaimed parentage, was ordered by the court to support the child.

Comment.—The scientific value of the court's findings is open to doubt but not its moral value. If every Baalam's two-legged animal was compelled to support his illegitimate offspring and care for it there would not be so many Harry News to commit murder, and the state have to support them in the asylum or pen.

Cooking destroys the vitamins in many kinds of food. When the vital entity in a food is killed its nourishing property is nil; or its chemical composition may be changed and the food may become an irritant when taken into the system. Experiments prove that the dietetic naturopath has facts to found his theory upon. But he had not got all the facts. There is a percentage of foods that would be more nourishing and health-giving if eaten raw, that are now cooked. This is true of many of the vegetables, fruits, berries and nuts. There is one fly in the ointment of the raw food dietition and that is dirt. The dirt on the raw food may carry infection. If scrupulous cleanliness is observed in preparation of the food the raw food faddist has an inning.

The x-rays are being used as an adjuvant to quinine in the treatment of malaria. "They do not destroy the parasite but stimulate the functioning of the spleen, of the marrow, and of the lymphatic elements by means of slight but

prolonged excitation; infinitesimal doses are employed."

When the ankles bend in while walking or the heels of the shoes wear on the inner side, flat foot is on the way or present. The treatment recommended aside from low, straight heels and supports, is to practice persistently, toeing in and raising the weight of the body slowly on the toes while in that position.

If you want to know the length of the intestine, use Henning's rule. Thus, "the length of the intestine equals ten times the sitting height." Knowing the length of the gut and its diameter, the area of mucous surface can be easily found out by multiplying the diameter by 3.1416 and this by the length. When Henning's rule was given in 1881, the x-ray was not used, if known. It may be possible in the near future for the physician, by the use of the fluoroscope, to examine the mucous membrane of the intestine and see and measure the extent of the inflamed surface, the ulcers in it and their depth and be able to diagnose, treat and prognose his case scientifically and accurately.

The secret of health, strength and beauty of the ancient Greeks was in their dances and other exercise. Their system of exercise gave continual self-adjustment to their spines.

To relieve that heavy, distressed feeling in the stomach after eating, take a seidlitz powder. And to keep free of stomach distress don't eat so much next time.

If you are troubled with rheumatic, gouty, stichy, flickering, lancinating pains, and you are a meat eater, quit it and live on a vegetable diet. By so doing you need not be a faddist but an experimenter with a good prospect.

Psychologists tell us that illusions, hallucinations and delusions are plain earmarks of insanity. And further, that sane people have illusions, hallucinations and delusions. This completes the circle.

Professor Lumiere, of the Academy of Science, Paris, France, says "if one lived on cooked food alone he would die within a year, and that the most healthful diet consists of raw vegetables, grains and fruits."

A man whose name is Nickle, his wife and three children registered in a Los Angeles hotel as "Two Bits."

The white man thinks of sickness, blood, pills and serums when he meets a doctor. The Chinaman, when he sees a doctor, thinks of health and happiness. The white man pays the phy-

sician when he is sick. The Chinaman pays the physician when he is well, and to keep him well. Sickness always comes at the wrong time and like a boil in the wrong place. When a man is sick he is not able to earn money to pay a doctor bill. Increasing debt and a helpless condition depresses the already sick man and prolongs his sickness, or may tide him over the divide. At any rate accumulating debt is not a tonic at any time but is a depressant. On the other hand, when the sick man knows that his doctor bill is paid and there is no financial gain to the doctor by his prolonged sickness, there is no occasion for suspicion on the part of the patient that the doctor is prolonging his sickness nor making unnecessary visits, but that the sick man and the doctor's interests are one in getting him well. Such a condition of mind in the patient is a tonic of itself. From the psychological, health and financial standpoints it would seem that the Chinaman has the edge on the white man's plan of medical treatment.

The statement is made, often, that a man can fast for forty days and live. That is, he can keep from taking nourishment for forty days and life continue. The human body is composed of seventy-nine parts of water and twenty-one parts of solid material. Hence about four-fifths of the human body is water. It has been demonstrated that a man can live forty days without taking any nourishment, except water. Reasoning from analogy, it is not surprising that the human body can continue to function for many days if furnished with four-fifths of its normal sustenance.

The following facts would be amusing if we, "the people," did not have to pay the fiddler. And from the further fact that it shows up our crazy governmental method of dealing with the question of public health. The following statement is copied from the Congressional Record and is a report of Mr. Good, chairman of the appropriation committee in Congress: "Today duplication in the government service abounds on every hand. There are one hundred and twenty-six departments of the government, with large overhead organizations." Here he names them, eight in all, and of the Public Health Department, last but not least, he says: "Forty-two different organizations, with large overhead expense, are dealing with the question of public health." Scattered all over the District of Columbia, in the different departments, any one who wants to know what the government is doing in reference to public health has an all-day search to find which one of these forty-two he wants. To help to get rid of this multiplicity of commissions and centralize the power, responsibility and effectiveness of this medley into one work-

ing whole is a big job for the medical profession, but its duty. Governor Lowden says, "Of course, when you create a commission or a board, or any other office, so far as that is concerned, it is the hardest thing in the world to get rid of it. There is not anything I know of which so nearly approaches immortality as a public office once created."

Words die. A dead word is called obsolete. Why not say of a man when dead, he is obsolete; it is a smoother word than dead.

Real estate men now call themselves "real-tors;" tramps are "leisurists" and undertakers "mordicians." We are reminded by the lay press that the faculty of the University of Virginia (Charlottesville) has resolved to make the word "Doctor" everlasting and exclusive, limiting its use and application, by statute, to the regular medical man only. It is a question if the great mass of by-products would stand for it. Again, the man who has earned the title is not always consistent himself. For when in public or the courts of law he is asked, "What is your business," he does not answer, "I am a doctor," but he answers, "I am a physician."

If you have not had an opportunity to travel, or have found this old earth too small for you to do all the gadding around to satisfy your hiking propensities, don't worry.

Admitting that the universe is limited but not discouragingly circumscribed — listen: Einstein says the universe is limited and that the orbit of the earth, the track it swings around in, is only a little more than 186,000,000 miles in diameter. But the universe is ten trillion times as wide as that. To give the idea in another way; light travels 180,000 miles a second, seven and a half times around the earth in a second. Going at that rate of speed it would take light a thousand million years to go around the universe. Some jokeman asks what limits the limit, or what is outside the limit? Such questions are irrelevant and out of order. Better let the "nut" have his way, but don't worry.

It is, however, a pleasing thought to have so much room to exercise in and the high rate of speed to be attained in winging our way throughout the universe unshackled in sightseeing and gaining useful information without worry.

There is no other profession in which "you have to run so fast to stay where you are" as in the medical profession. There is no other profession in which you have so much to forget to keep up with the procession as in medicine. That is why medicine and its practice is exciting, entertaining, instructive, elusive and prophetic.

As to the statement that "one infected immigrant might spread a plague that would cause a million deaths in six weeks in New York," it is interesting to note that, while not generally known, typhus fever has existed in New York City for years. About 1910 Dr. Nathan Brill recorded a series of somewhat less than 200 cases which he had observed in the previous ten years, and during 1911, 34 such cases occurred in New York City, and others have occurred from time to time since that date. For the most part they were of isolated occurrence and indicated that conditions in New York City were not conducive to any serious spread of the infection. Goldberger and Anderson of the U. S. Public Health Service, in 1911, demonstrated by laboratory tests that the so-called "Brill's disease" was identical with old-world typhus; that the clinical manifestations were very similar but much milder in type; that the disease was transmitted by the louse in the same way as old-world typhus, and while not so virulent, sometimes resulted fatally.

"The menace to this country from the introduction of typhus from Europe is not of recent development and is no greater today than it was six months ago. Even before the armistice the Surgeon General recognized the potentialities of the disease spreading to the United States if adequate precautionary measures were not taken when immigration was resumed. During the past year the medical officers of the Public Health Service have been stationed at American Consulates at chief European ports of embarkation to supervise measures to be applied against ships and passengers for the prevention of the spread not only of typhus but also of plague and cholera. While the measures enforced at the European ports have by no means been perfect their value is indicated in the fact that several hundred thousand immigrants have come from typhus-infected areas on several hundred ships and that out of all this number typhus infection occurred only on eight vessels. With the exception of the steamship Presidente Wilson, which arrived at New York on February 1, infection on the ships was detected by the quarantine officer at New York and effective precautionary measures applied. Upon arrival of the steamship Presidente Wilson at New York there were three cases in the sick bay of what the quarantine officer diagnosed as bronchopneumonia but which later on proved to be typhus. The doctor was experienced in the detection of typhus, but the cases presented no eruption and the mistake was by no means inexcusable. Still under the custodial care of the immigration authorities the sick people were sent to the Long Island College hospital which takes care of sick immigrants, and the correct

diagnosis later became apparent. Fortunately the error was discovered before the other passengers in the steerage were released, and the vessel and the immigrants were remanded to quarantine and appropriate treatment applied to prevent the spread of the infection. The incident was unquestionably deplorable, but it indicated neither a breakdown of the New York quarantine station nor any unreasonably laxity.

The morticians (undertakers) are getting onto new things to their financial gain and convenience inadvertently. In Los Angeles the other day at a negro funeral a mortician was annoyed by a small but very black negro boy standing in front of the door and the door-way. He said to the black boy, "Get away from here—go 'way back and set down." "Oh! No, man," said the negro boy, "I is de krape."

The latest fad treatment is "Brain Wash." It consists in standing on the head from three to five minutes each day. The flow of blood to the head keeps the brain from drying out. The excess fluid forced into the head displaces the gas and furnishes a richer food pabulum for the brain cells than hot air. The positional treatment is said to change a man's ocular viewpoint in life quickly and to be great stuff. It, also, does away with auricular flutter.

Now comes the surgeon of Kane, Pa., who removed his own appendix under local anesthetic administered by himself. His only assistant being a nurse, whose principal duty, according to the newspaper story, was to hold the surgeon's head up so he could see the field of operation.

The Northeast Kansas Medical Society will meet in Lawrence on March 31. The program will commence at 11 o'clock. The regular announcement and program will be found in the "Societies" column.

R SOCIETIES

The Northeast Kansas Society

The Northeast Kansas Medical Society will meet in Lawrence on March 31. The meeting will begin at 11 a. m.

PROGRAM

1. The Comparative Anatomy and Development of the Reproductive System with Practical Application.—Dr. G. E. Coghill, Kansas University.

2. Hermaphroditism in Men and Animals.—Dr. Hubert Sheppard, Kansas University.

3. The Influence of Embryology in Pathology.—Dr. H. C. Tracy, Kansas University.

4. Congenital Syphilis.—H. L. Dwyer, Kansas City.

5. Clinical Forms of Feeble-mindedness.—Karl A. Menninger, Topeka.

6. The Diagnosis and Treatment of Prostatic Hypertrophy—Illustrated.—Dr. J. E. Burns, Kansas City, Mo.

7. Paper.—Dr. B. A. Poorman, Atchison.

8. Focal Infection.—R. C. Lowman, Kansas City.

9. The Operation for Cancer of the Breast.—R. B. Stewart, Topeka.

10. Facts and Fallacies of the Cancer Problem.—G. W. Jones, Lawrence.

J. L. Everhardy.

Meade-Seward County Society

The Meade-Seward Counties Medical Society met at the Liberal Hospital on Feb. 10, and after a fine banquet which was prepared by the nurses proceeded to business. Election of officers was the first business in order. A. M. Morrow was elected President; F. W. Huddleston, Vice President; J. W. Messersmith, Secretary-Treasurer. After some very interesting talks by the members on different subjects, which were enjoyed by all. Drs. B. H. Day, H. Lee Johnson and E. Treekill were elected members of the society. Drs. B. H. Day and J. W. Messersmith were elected delegates to Wichita on May 4, 5, 6. Dr. F. W. Huddleston will read a paper at this meeting, subject to be announced later. Drs. Day and Leslie will each prepare a paper to be read at our next meeting. This is one time that we had an excellent meeting. Please don't understand but what all of our former meetings have been good. I don't want to forget one visitor, an old war horse, our old friend, Dr. Anderson from Oklahoma.

J. W. Messersmith, Secretary.

Franklin County Medical Society

The society held its regular monthly meeting at Ottawa, February 23rd. The meeting was called to order by the president, Dr. J. R. Scott. There were 13 members present and 11 visitors. The usual routine business was transacted.

The program of the evening was turned over to members of the staff of Saint Luke's Hospital, Kansas City, Mo.

Dr. E. H. Skinner gave an illustrated lecture on "Analysis of X-Ray Bone Shadows."

Dr. Logan Clendenning read a paper on "Chronic Lung Disease," also illustrated by lantern pictures.

Dr. Virgil McCarty gave a lecture on "The Relation of the General Practitioner to Oology."

Dr. Kuhn read a paper on "Post Operative Complications of Appendectomy."

These lectures were received by all present with much pleasure, and we hope the crowd will "come again."

The following officers have been elected for the present year: President, J. R. Scott, M. D., Ottawa; Vice President, H. B. Johnson, M. D., Pomona; Secretary-Treasurer, C. W. Hardy, M. D., Ottawa.

C. W. Hardy, Secretary.

Central Kansas Society

The first quarterly meeting of the Central Kansas Medical Society was held at Ellsworth, in the Central National Bank Building, Feb. 11, 1921.

President Hawes being absent, Dr. C. D. Blake, Vice President, called the meeting to order at 2 o'clock.

The following members were present: Drs. P. C. Anders, C. H. Jameson, O. A. Hennerich, R. H. Meade, J. R. Betthausen, C. D. Blake, Hays; R. D. Stoner, Ellis; R. A. Stewart, Russell; J. B. Carter, Leo V. Turgeon, Wilson; C. F. Zerzan, Holyrood; R. E. Teal, Palco; Geo. F. Davis, Kanopolis; H. Clair O'Donnell, Alfred O'Donnell, H. Z. Hissem, W. J. Scott, B. H. Mayer, Ellsworth.

The following visitors were present: Drs. Nordstrum, Mowery, Riddell, Brittain, Wright, Vermillion and Loyd, all from Salina; Bergstrum, Beverly; Fowler, Brookville; C. H. Mercier, Logan Clendenning, Kansas City, Mo.

The following program was given:

Case Histories, Dr. Geo. F. Zerzan, Holyrood; Cardiac Arrhythmia, Dr. H. St. Clair O'Donnell, Ellsworth; Giving the Child an Eye, Dr. O. A. Hennerich; Dermatoses, Dr. J. R. Betthausen, Hays; Clinical Cases and Histories, Drs. Hissem

and O'Donnell, Ellsworth; Forms of Chronic Lung Disease, Dr. Logan Clendenning, Kansas City, Mo.; Fundamental Principles in Diagnosis of Low Back Lesions, Report of Cases, Lantern Slides, Dr. C. W. Mercier, Kansas City, Mo.

After the local papers were read, in the afternoon a business meeting was held. The following officers were elected for the year 1921: President, Dr. C. D. Blake, Hays; Vice President, Dr. H. Z. Hissem, Ellsworth; Secretary-Treasurer, Dr. Leo V. Turgeon, Wilson; Censor, Dr. B. H. Mayer, Ellsworth; delegates to state meeting, Dr. F. S. Hawes, Russell and Dr. Alfred O'Donnell, Ellsworth. Dr. R. E. Teal, of Palco, was voted in as a member of the society.

Following the business meeting the Ellsworth doctors gave all the visiting doctors a good treat by taking them out to their trap-shooting field where they all enjoyed themselves, even if the clay birds all fell safe in the field.

After an enjoyable banquet at the Baker House Hotel, the visiting papers were read. These papers were thoroughly enjoyed by all present, and the members gave them a rising vote of thanks and trusted that they would be able to meet with the society on some later date.

Leo V. Turgeon, M. D., Secretary-Treasurer.

Stafford County Medical Society

The Society met in St. John, Feb. 7th, at 3:00 p. m. Dr. C. S. Adams, President, was in the chair and the following members were present: Drs. W. L. Butler, T. W. Scott, W. S. Crouch, F. W. Tretbar, J. J. Tretbar, Stafford; H. H. Miner, M. M. Hart, Macksville; W. C. Brundant, Hudson; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John. The visitors were: Drs. E. E. Morrison, Great Bend; H. L. Scales, G. Chickering, W. N. Mundell, Hutchinson. Dr. Morrison read a paper entitled "The Stomach Case," in which he mentioned the usual symptoms met in so-called stomach troubles. He stated that in a considerable number of these cases it would be found on careful examination, that the diseased condition was not in the stomach but that it was either a reflex or a mechanical obstruction due to pathology below the stomach. He exhibited a number of x-ray plates made from his own and referred cases showing hyperperistalsis, incisuria due to

ulcer, pyloric stenosis, spastic colon and S-shaped appendix. The paper and also the interpretation of the plates by the essayist were very instructive. Dr. H. L. Scales read a paper on "Interstitial Keratitis in Congenital Syphilis," and presented two cases to demonstrate points in the diagnosis. The essayist stated that his desire was to present the subject in such a way as to make it interesting to the general practitioner and the opinion of the meeting was that he succeeded splendidly. Following this, Dr. Chickering read a paper on "Diagnosis and Treatment of Congenital Syphilis," which was fully up to the standard set by the previous papers. Dr. W. N. Mundell, of Hutchinson, Secretary of Seventh District Medical Society, was at the meeting and spoke of the tentative program of the spring meeting of that society, which will take place early in June.

J. T. Scott, Secretary.

Labette County Society

The Society met in Oswego in the parlors of the First National Bank, Wednesday, Feb. 23, at 8:00 p. m., Dr. E. E. Liggett, presiding, with twenty-two members and the following visitors present: C. C. Nesselrode, Kansas City; P. M. Krall, Kansas City; Chas. S. Campbell, J. B. Chadwick, E. G. Coyle, F. W. Duncan, C. E. Grigsby, Coffeyville; Leroy W. Baxter, H. H. Brookhart, J. Dale Graham, W. N. Johnson, Chas. T. Reid, Columbus; G. C. McCormick, J. H. Boswell, Baxter Springs; S. A. Grantham, Joplin; R. C. Loudermilk, Galena; M. J. Tanquary, M. E. Cromwell, Independence.

The President explained that the lectures for the evening were the first of a series to be given by men from the Kansas University Medical School. That these lectures would be in the form of a post-graduate course and that it was the intention of officers of the Society to invite members of the surrounding county societies to be our guests at these meetings.

Program.—Drs. G. C. Nesselrode and P. M. Krall, of Kansas City, presented papers. Their subject was: "The Medical and Surgical Phases of the Diseased Thyroid Gland," with special reference to the measurement of basal metabolism as an aid both in diagnosis and prognosis of the disease. Dr. Nesselrode discussed the

conditions from the surgeon's standpoint and Dr. Krall from that of the internist. The papers were very interesting and instructive and were highly complimented by all present.

P. S. Townsend, Secretary.

Personals.—Dr. J. G. Missildine has moved to Wichita and has taken up the practice of urology and syphilology.

Cowley County Medical Society

The regular February meeting was held in Arkansas City, Feb. 17, and 35 members and 5 guests were present. Minutes of last meeting read and approved.

Drs. C. R. Spain and C. C. Hawke were elected as delegates to the State Society meeting.

Dr. A. J. Berger, of Arkansas City, was admitted on transfer from Calumet County, Wis. Dr. P. N. Whitney, of Arkansas City, was elected to membership.

It was voted to invite our District Councillor to address the next meeting.

Program.—"Thyroid Disorders," L. S. Milne, M. D., Kansas City, Mo.

Dr. Milne first discussed endocrine glands in general, with their relations to one another, and gave the history of this work. He then took up the etiology of thyroid disorders.

1st. Geographic location, calling attention to the fact that the so-called goitre districts lie in the center of the continents. This was in part due to the lowered iodine content of the soil and water in these parts. Three one-thousandths of a gram of iodine a week is a satisfactory prophylactic.

2nd. Infections, both acute and chronic. Especially the tonsil and throat. The cystic type of enlargement characterises the chronic infection disturbance.

3rd. Nervous shock may be quickly followed by an enlargement and symptoms of hyperthyroidism.

4th. Pelvic disorders and exhaustion may cause thyroid disturbance.

5th. Local disease, such as adenomata, may be present and even if too small to feel may be the source of grave trouble.

Symptoms.

Hypothyroidism-Myxedema—Sleepy, cold, subnormal temperature, dry skin, slow pulse, de-

pression. Slight symptoms—Backward in school, short hands, pads of fat on shoulders, constipated, stout, occasional deafness, low resistance to infections, acne. May be diagnosed as heart cases due to the slow pulse and edema, but these cases do not respond to heart stimulants.

Hyperthyroidism—Rapid heart, one or both eyes protrude, increased blood pressure, and headache, due to stimulation of the adrenals, gastric hyperacidity, diarrhoea, slight chronic fever.

Cystic enlargement—Pressure symptoms.

Substernal goitre may exist and not be found except with x-ray. Asthmatic symptoms and edema and spasm of the glottis.

Tuberculosis—Light hyperthyroidism and neuro-circulatory-asthenia are not to differentiate. In tuberculosis the blood pressure is low and the weakness greater.

The various tests were given, but the metabolism test is the best, and is the best guide on the amount to be removed in case of operation. These cases that do not improve after three months rest and medical treatment may be considered surgical. Cystic type are always surgical. The adolescent type tend to get well without much treatment and are medical. X-ray has a limited value in the small pulsating type.

It was voted to take up the matter of a joint meeting with Kay County, Oklahoma, and Sumner County at a later date.

Following the meeting refreshments and cigars were served.

The next meeting will be in Winfield at the Commercial Club, March 17.

C. C. Hawke, M. D., Secretary.

Lincoln County Society

The first meeting of the Lincoln County Medical Society for the year was held February 17, at Lincoln. The following officers were elected for the ensuing year: President, A. M. Towndsin, Barnard; Vice President, B. A. Higgins, Lincoln; Secretary, Malcolm Newlon, Lincoln. Delegate to the State convention, G. M. Anderson. Alternate, A. M. Towndsin, Barnard.

It was decided to hold meetings quarterly

hereafter on the second Thursday of January, April, July and October.

There was a good attendance present and several subjects of importance to the Society were taken up and acted on.

Every eligible doctor in the county will be a member of the Lincoln County and Kansas State Medical Societies this year.

Malcolm Newlon, Secretary.

Shawnee County Medical Society

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, February 7, at the Elks Club.

Two New members were voted into the Society.

Dr. C. A. McGuire gave a very interesting paper on "History Taking."

The next regular meeting will be held Monday evening, March 7, at St. Francis Hospital.

E. G. Brown, Secretary.

Riley County Medical Society

The regular meeting of the Riley County Medical Society was held at the Pines in Manhattan, February 14, 1921. After a 6 o'clock dinner an interesting program was carried out. The main feature was a paper on "Acme Suppurative Otitis Media," given by Dr. A. H. Bressler. The paper was freely discussed by all present.

The Society is in good working order and expects to have at least one good paper at each monthly meeting.

The officers of this Society for 1921 are: Dr. Groody, President; Dr. Norman, Vice President; Dr. Siever, Secretary and Treasurer; Dr. Mathews, censor for three years; Dr. Ross, delegate to State Convention.

C. M. Siever, Secretary.

Butler County Society

The Butler County Medical Society was organized on February 1, and a charter applied for. There are twenty-four charter members. The following officers were elected:

D. Gray, El Dorado, President; R. J. Ca-been, Leon, vice President; F. A. Garvin, Augusta, Secretary; F. F. Lemon, Douglas, Treasurer; A. B. Earp, El Dorado, W. J. Eilert, El

Dorado, and G. A. Spray, Augusta, censors; C. E. Boudreau and W. J. Eilerts, El Dorado, delegates; W. B. McKinney, Augusta, alternate.

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BOOKS

Pulmonary Tuberculosis. A Handbook for Students and Practitioners. By Edward O. Otis, A.B., M.D. Professor of Pulmonary Diseases and Climatology, Tufts College Medical School, Boston, etc. Published by W. M. Leonard, Boston. Price, \$3.50.

The author has rewritten this book, or practically so, and has added material of some value. It is written with the idea of meeting the more general demand for knowledge on the subject of tuberculosis and is very well adapted for the non-medical reader as well as for the student in medicine. It takes up the anatomy and physiology, the history of tuberculosis, the pathology and bacteriology, the diagnosis and the treatment. The author has included in this edition a chapter on the "Examination of Soldiers for Tuberculosis," in which the methods given by Col. Bushneda are particularly stressed.

A Textbook of the Practice of Medicine, by James M. Anders, M.D., Ph.D., LL.D., Professor of Medicine Graduate School of Medicine, University of Pennsylvania, Fourteenth Edition. Thoroughly Revised with the Assistance of John H. Musser, Jr., M.D., Associate in Medicine, University of Pennsylvania. Octavo of 1284 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$10.00 net.

While some of the old chapters have been shortened and some material eliminated, many other subjects have been elaborated and much new material has been added. Among the subjects discussed in this edition that were not before included in the work are: Bronchial Spirochetosis, Streptococcic (Hemolytic) Pneumonia, Trench Nephritis, Disordered Action of the Heart, Chronic (Syphilitic) Aortitis, Interstitial Emphysema, Epidemic Encephalitis, Oxycephaly, Wood (Methyl) Alcohol Poisoning, and Botulism. New material has been added to the discussion of many diseases and particularly those in which it is now believed that foreign protein may play a part as an etiologic factor.

The Radiography of the Chest. Vol. I. Pulmonary Tuberculosis. By Walker Overend, M.A., M.D. (Oxon), B.Sc. (Lond.) Hon. Radiologist and Physician to the Electrotherapeutic Department, East Sussex Hospital (Hastings); Radiologist to the City of London Hospital for Diseases of the Chest (during the War), etc. With 9 line Diagrams and 99 Radiograms. Published by C. V. Mosby Co., St. Louis. Price, \$5.00.

The x-ray has added very materially to the general knowledge of the progress of pulmonary tuberculosis and has made the early diagnosis of tuberculous lesions a much simpler matter

than when symptoms and vague physical signs were alone available. While it is possible in some cases to make a positive diagnosis of tuberculosis by means of radiography alone it is perhaps always best to check and compare with other means of investigation. The author has very carefully classified the many types of tuberculosis as they appear in radiography and has submitted a thorough analysis of the radiograms shown. This book should be of much value and assistance to those engaged in roentgenology, and will be particularly valuable to the practitioner who is usually called upon to check up his physical findings with those of the roentgenogram.

The Roentgen Diagnosis of Diseases of the Alimentary Canal. By Russel D. Carman, M.D., Head of Section of Roentgenology in the Division of Medicine, Mayo Clinic and Professor of Roentgenology (Mayo Foundation), Graduate School of Medicine, University of Minnesota, Second Edition Thoroughly Revised. Octavo of 676 pages with 626 original illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$8.50 net.

The second edition of this work by Carman shows considerable new material, nearly one hundred pages and one hundred and twenty-two illustrations have been added. A chapter on "Hour-glass Stomach" has been added, but perhaps the one of greatest interest at this time is the chapter on the pneumoperitoneal diagnosis of abdominal lesions. While no one presumes that the last word will be written on this subject for a long time yet, the author's experience and opportunities for observation in this particular line entitle him to the prestige which advanced work usually brings.

The Anatomy of the Nervous System, from the Standpoint of Development and Function. By Stephen W. Ransom, M.D., Ph.D., Professor of Anatomy in Northwestern University Medical School, Chicago. Octavo volume of 395 pages, with 260 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$6.50 net.

The author has attempted to present the anatomy of the nervous system so that the student will think of it in its relation to the rest of the living organism. He has emphasized the developmental and functional significance of structure. It is a very comprehensive survey of the subject and is profusely illustrated. For the benefit of the student a laboratory outline of neuro-anatomy is appended.

Psychopathology, by Edward J. Kempf, M.D., Clinical Psychiatrist to St. Elizabeth Hospital (formerly Government Hospital for the Insane), Washington, D. C. Eighty-seven illustrations. Published by C. V. Mosby Co., St. Louis. Price, \$9.50.

The author has written this book, as he states, "for the professional student of human be-

havior who must have an unprejudiced insight into human nature in order to deal justly and intelligently with problems of abnormal behavior. He deals first with the physiological foundations of the personality, then with the psychology of the family and then with the conditions which lead up to the various psychoneuroses. Considerable space is devoted to detailed reports and discussion of cases. In these narratives the state of mind of the patient is carefully portrayed, and the conditions which have led up to it are determined by the analyses. From the mechanical point of view this book maintains the high standard of excellence of the Mosby Co.

Practical Preventive Medicine. By Prof. Mark F. Boyd, M. D., C.H.P., Professor of Bacteriology and Preventive Medicine in the Medical Department of the University of Texas. Octavo volume of 352 pages, with 135 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$4.00 net.

The author has divided his subject into several sections: Diseases due to invading microorganisms; deficiency diseases; occupational diseases; special aspects of hygiene and sanitation; demography; public health. For the diseases transmitted by contact the author has devised a very convenient form for description in which the following heads are used: Infective agent, source of infection, exit of infective agent, route of transmission, incubation period, period of communicability, entrance of infective agent into the body, methods of control. By this means he has greatly simplified and condensed the facts known about these diseases.

Laboratory Manual of the Technic of Basal Metabolic Rate Determination. By Walter M. Boothby, M.D., and Irene Sandiford, Ph.D., Section on Clinical Metabolism. The Mayo Clinic, Rochester, Minn., and The Mayo Foundation, University of Minnesota. Octavo volume of 117 pages, with 11 Tables and Charts of explanation. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$5.00 net.

The diagnostic importance of basal metabolic rate demonstrations has been generally recognized. The difficulties attending the methods suggested, or the inaccuracy of the simpler methods, have handicapped many of the men who attempted to follow them. Indirect calorimetry is technically difficult and the authors have attempted in this book to give the accurate details of this method.

Chemical Pathology. Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. Gideon Wells, Ph.D., M.D., Professor of Pathology in the University of Chicago, and in the Rush Medical College Chicago. Fourth Edition, Revised and Reset. Octavo of 695 pages. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$7.00 net.

This is one of the most valuable contributions of the period to our medical literature. As might be expected from the vast amount of research along this line, a considerable amount of new material has been added in the fourth edition. There is a new chapter on deficiency diseases and also one on anaphylaxis and allergy. Much of the book, in fact, has been rewritten.

A Manual of Pathology. By Guthrie McConnell, M. D., Associate in Pathology Western Reserve University, Medical School, Cleveland, Ohio. Fourth Edition, Thoroughly Revised. 12 mo. volume of 611 pages, with 18 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$4.50 net.

Since this book has reached its fourth edition one must admit that there must be some demand for manuals. One must also admit that it possesses a degree of excellence such as may be expected in so small a text on so large a subject. Its purpose "to enable the student especially to rapidly acquire the salient points of a subject" may be well fulfilled, but one must rather deplore the necessity which permits the student to rapidly acquire the salient points of any subject. A knowledge of pathology which consists of salient points alone must be regarded as too superficial for practical purposes.

The Endocrines. By Samuel Wyllis Bandler, M.D., F.A.C.S., Professor of Gynecology in the New York Post-Graduate School and Hospital. Octavo of 486 pages. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$7.00 net.

There are few subjects in medicine so absorbing, to those who have given it a little study, than endocrinology. Even though our definite knowledge of the physiologic action of the internal secretions is limited, and their apparent interrelationship leads to confusion, one must see in their further study a solution to many of the medical problems that have engaged the students in medicine for ages. We quote from the author's preface: "What is known of the endocrine glands is bearing more than sufficient root to form a working basis for the understanding of these numerous hereditary, physical and psychic questions. Only by therapy and by the use of the extracts of these glands can we be led to definite conclusions. Hence every practicing physician has in his hands the material with which he may lend aid in the research along these lines.

1919 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 1331 pages, 490 illustrations. Philadelphia and London: W. B. Saunders Company. Cloth, \$12.00 net.

These papers from the Mayo Clinic are now quite as necessary to a complete medical library as is a good up-to-date dictionary. It is need-

less to say that the last collection of papers is more interesting and more instructive than those which have preceded it, for that is to be expected—this is new, and the new is always more interesting. Every one of the papers in this collection will be highly appreciated, but the writer is particularly impressed by the "Studies on Elective Localization," by Rosenow, and the one on "Pulmonary Suppuration," by Hedblom. As usual, the mechanical work is excellent and the plates particularly so.

Surgical Clinics of Chicago. Volume IV, Number VI (December, 1920). Octavo of 1336 pages, 57 illustrations and complete index to Volume IV. Philadelphia and London: W. B. Saunders Company, 1920. Published bi-monthly. Price per year, paper, \$12.00; cloth, \$16.00 net.

The December number of the Clinics has some quite interesting reports. The usual list of contributors are represented and the clinics reported are of practical value to the average reader. Eisendrath has a very instructive clinical lecture on pyelitis in pregnancy and the puerperium. Kanavel has a very interesting clinic on the after treatment of infections of the hand. The clinics of Bevan, Speed and Stambaugh are well worth price of this number.

The Medical Clinics of North America. Volume IV, Number 4 (St. Louis Number, November, 1920). Octavo of 280 pages, 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Published bi-monthly. Price per clinic year, paper, \$12.44; cloth, \$16.00.

Those who have given much thought to the subject of endocrinology will do well to read the article by Engelbach on endocrine amenorrhea and the article by Tierney on basal metabolic rate in endocrine disturbance, in this number of the Clinics. Barnes has a very interesting discussion on the neuropsychic reactions associated with disturbances of ovarian function. There are many very interesting articles in this number, in fact, all of them are timely and instructive.

R C. & C. Bureau

Every week shows a little more interest in the Bureau. In order that this work may be made the success it should be made every member of the society must take advantage of its facilities. You must not expect the Bureau only to help you, but you must help the Bureau to help others. It must be a co-operative system. The man who refuses to pay Dr. A. will most likely also refuse to pay you. In sending in your accounts, give the name in full if possible, the occupation if known or

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 R

The Kernels of Wheat

The busy physician cannot read everything that comes to his desk. The varied assortment of pamphlets, circulars and other printed matter that comprise a considerable portion of his daily mail often receives but scant consideration unless there be some conspicuous feature in it to fix his attention. But even chaff may contain kernels of wheat—a thought suggested by the receipt of an exceedingly attractive little pamphlet just issued by Parke, Davis & Co., bearing the superscription "Adrenalin in Medicine." Here is something which even the busy practitioner can read with pleasure and profit. It sets forth in the briefest possible manner all that is known respecting the properties and therapeutic uses of Adrenalin. Bye the bye, it

is a fact not generally appreciated that the vast literature we possess today on the functions and medical adaptations of the suprarenal body hinges almost absolutely upon the study of Adrenalin by many laboratory and clinical workers in many countries.

We urgently advise our readers to send for a copy of the booklet for immediate perusal and future reference; a descriptive announcement will be found in the advertising section. Parke, Davis & Co. will cheerfully honor all requests for the boklet from medical men.

 R

Medical Facts and Chiropractic Fiction

Throughout the length and breadth of the country there has recently been heralded an alleged marvelous cure of what the newspapers have been pleased to call "talking sickness." Not only have the newspapers made sensational stories out of it, but the chiropractors have used it as a basis for flaming newspaper advertisements extolling the virtues of their cult. Reading these news articles and advertisements one learns that an 8-year-old child was suffering from a "strange talking malady" that was so remarkable that "specialists from all parts of the country were interested in her case." Further, one learns that "every form of sedative had been administered without improvement," and "all the medical physicians and consulting specialists whose services were tendered" failed to bring relief. Finally, a chiropractor "pleaded for the opportunity to save the child and gained consent of the parents." In a "few moments" the chiropractor "adjusted" the "second and fifth vertebrae," and "the talking stopped"! And, continued the full page advertisements, in very large and very black type: "She Has Completely Recovered and Is as Healthy and Happy as You." So much for the fiction. It made a good newspaper story, especially for those newspapers that saw in it the opportunity to suggest to the chiropractic fraternity that, as their business had been given a magnificent boost in the news columns, it was highly desirable that they should add to this free advertising momentum an additional urge through the advertising pages. Rate card enclosed. What are the facts? Briefly these: That the child did not suffer from so-called "talking sickness"; that the alleged adjustment of the spine did not "cure" the "sickness" and, finally, that the child has not "completely recovered," but is still dangerously ill. The case was one of epidemic encephalitis, with a temperature ranging between 99 and 103 and active delirium, inequality of the pupils and strabismus. The improvement was gradual and

that incident to the ordinarily observed progress of the disease. As shown by the case record, the chiropractor's "treatment" did not modify the course of the disease. The "talking" had ceased at intervals previous to his visit and continued at intervals after his "treatment." But the publicity given the case offered great opportunities for advertising and, as advertising is an important part of the chiropractic curriculum, it is but natural that this cult should take advantage of it.—*Jour. A. M. A.*, March 5, 1921.

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Prognosis of Nephritis in Childhood

A study was undertaken by Richard F. James (*Journal A. M. A.*, Feb. 19, 1921) to determine (1) how many patients that had had acute nephritis recovered entirely; (2) how many developed the chronic type; (3) the present condition of the chronic type, and (4) the ultimate prognosis. Seventy children who had had nephritis the last sixteen years were examined. The examination included the cardio-vascular system, hemoglobin, urinalysis, present health of the child, record of the patient's condition while under treatment and the etiology. Nine of the sixty-seven cases, or 13.3 per cent, terminated in the chronic type, and of these only two could be considered severe. All of the sixty-seven patients who had had acute nephritis are living under normal conditions, on ordinary diet; and in every case the urine was found to be negative. Of twelve fatal acute exudative cases, one patient had an associated tuberculous peritonitis and one died of terminal pneumonia. Ten had general edema, two died of uremic convulsions; one patient having acute suppression of urine died following a decapsulation; one had associated acidosis. The point to be noted is that in none of the cases of the hemorrhagic type without edema did the patients die in the acute stage of the disease. In the group of twelve chronic cases, eight had albuminuria, four did not. In the urine of two patients, seen two years after discharge, a few red blood cells were found under high power. James believes that many patients with mild chronic nephritis recover. Diseased portions may recover even if there is considerable degeneration, and neighboring portions of the kidney may hypertrophy and carry on the extra work. In other words, an anatomically imperfect kidney can function efficiently. Many children will stand severe infections without acute exacerbations of nephritis, but they are more prone to follow upper respiratory infections. For this reason all foci of infection should be treated, such as diseased tonsils, carious teeth and otitis media (acute or chronic). They act as a reservoir of toxic material which the kidneys drain.

Tincture of Digitalis and the Infusion in Therapeutics

Tincture of digitalis was prepared by Soma Weiss and Robert A. Hatcher, New York (*Journal A. M. A.*, Feb. 19, 1921), the marc of which was dried and used in the preparation of an infusion; this infusion of marc was tested on cats and found to be inert, showing that all of the active water-soluble principles of the leaf are extracted during the percolation for making the tincture. This method of testing the marc affords a delicate means of testing the degree to which the active water-soluble principles are extracted during the percolation of the drug. There is no essential difference in the amounts of the saponin bodies present in the tincture and in the infusion prepared from equal weights of the leaf, and therapeutic doses of digitalis do not contain enough to induce any undesirable effects. Infusion of digitalis were prepared in different ways. In each case the marc was washed and dried, after which it was used for the preparation of tincture, and this tincture was tested on cats in order to determine to what extent the active principles had been extracted during the preparation of the infusion. The official infusion does not represent the drug completely; hence the standardization of the leaf does not insure uniformity in activity of the infusion. The variability of the infusion is at the expense of the more absorbable of the active principles. The infusion prepared according to the method described represents the activities of the leaf completely; hence it permits of uniformity when a standardized powder is used for making it. It may be used in place of the tincture in doses just ten times the volume of those of the latter, and it becomes a matter of indifference, so far as therapeutic effects are concerned, which is used. The authors have been unable to discover any experimental evidence to support the view, still held by many, that there is a necessary qualitative difference between the actions of the tincture and those of the infusion of digitalis, even when the latter is prepared properly. An infusion of digitalis prepared in the manner recommended, and kept in completely filled hermetically sealed bottles for more than two years and five months, retained its activity unimpaired, as shown by the results of tests on cats and by the therapeutic effects on man.

—R—

Pneumatic Rupture of Intestine

The patient whose case is reported by J. R. Buchbinder, Chicago (*Journal A. M. A.*, Feb. 19, 1921) was the victim of a "joke." A fellow workman placed the nozzle of an air hose close to his rectum, while he was stooping over. The

nozzle delivered a pressure of 35 pounds. The man immediately screamed with pain and fell to the floor in collapse. When seen two hours later the patient's general appearance was that of profound shock. The abdomen was tremendously distended. The tension within the abdomen was so great that the palpitating hand could make no impression on it. Under procain anesthesia, a left rectus incision was made. The transversals fascia was not incised, but sharp nosed forceps were pushed through in order to control the escape of air. The fascia tore like wet paper under the great tension; the air rushed out with a report, and the abdominal wall dropped in. The sudden escape of air nearly proved fatal, but after a few moments the patient rallied, and his general condition seemed much improved. Exploration revealed a tear in the convexity of the sigmoid, which admitted three fingers. For a distance of from 6 to 8 inches, the serosa was stripped off and ribboned. The colon was collapsed and practically empty. The mucosa had herniated through the tear in the serosa, and was frayed out as though it had been scraped. The mesosigmoid was studded with small hemorrhages; but there was very little blood and no loose fecal material in the peritoneum. No other lesion was demonstrable. The tear in the sigmoid was closed and the peritoneum was sutured as well as could be with what was left of it. A loop of descending colon well above the injury was pulled out for a colostomy. The patient was put to bed and treated for shock, but died apparently without fully recovering therefrom, four hours later.

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Acute Infection of the Thyroid Gland

In three of the four cases of acute infection of the thyroid reported by Charles R. Edwards, Baltimore (Journal A. M. A., March 5, 1921), the infection followed a respiratory inflammation; and in the fourth case, the thyroid complication was coincident with an abdominal inflammation, although the fact that there was also a very transient and mild inflammation of the pharynx cannot be overlooked. The onset of the symptoms in all of these cases is usually sudden. There is pain in the neck, frequently referred to the ear, teeth, shoulder, arm or chest, depending on the amount of pressure produced by the inflammation and furthermore on the toxic effect of the micro-organism. This is associated with an elevation of temperature and a rapid pulse, a persistent cough with pronounced changes in the voice, dyspnea, which at times may be so severe as to require tracheotomy, painful swallowing and extreme restlessness. The leukocyte count is usually increased unless there has been

a profound infection of long duration. The physical examination reveals exquisite tenderness over the anterior portion of the neck below the larynx. There is usually swelling, which may be localized or diffuse; redness, and a marked induration, which sometimes makes it difficult to differentiate from woody phlegmon. There is usually rigidity of the muscles of the side affected, so that if only one lobe is inflamed, the head will be turned toward that side. Palpation of the gland is usually unsatisfactory because of the pronounced tenderness.

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Bence-Jones Proteinuria

Three cases of Bence-Jones proteinuria are reported by Waltman Walters, Rochester, Minn. (Journal A. M. A., March 5, 1921); one in a patient with an obscure diagnosis, one in a patient with a generalized carcinomatosis, and one in a patient with true multiple myeloma. Metabolic studies were made on each patient to determine variations in excretion on various diets. Walters states that a large quantity of albumin in otherwise negative urine in a patient with normal renal function and normal blood pressure and a marked secondary anemia should suggest the possibility of Bence-Jones proteinuria, especially when bone lesions are present. Bence-Jones proteinuria is significant from a diagnostic and prognostic standpoint of multiple myeloma, since it occurs in 80% of all cases, and usually is followed by death within two years. The quantity of Bence-Jones protein excreted is independent of the protein intake, evidenced by an approximately constant excretion for three-hour periods, irrespective of changes in diet. The amount of Bence-Jones protein excreted during the night when food is not taken is only slightly less than the amount excreted during the day. There is not a constant relationship between the quantity of Bence-Jones protein and the total urinary nitrogen excreted. As the findings of Bence-Jones protein in the urine led to its detection in the blood, it may be possible that other proteins of a similar or dissimilar nature are in existence in the blood and are not excreted by the kidneys.

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Splenomegaly With Multiple Abscesses of Liver

The case reported by J. Morrison Hutcheson, Richmond, Va. (Journal A. M. A., Feb. 26, 1921), exemplifies an unusual degree of splenomegaly occurring in the course of a severe infectious disease and also in the presence of profound hepatic disturbance. The case is of interest in that it shows an unusual combination of clinical and pathologic findings, probably

arising as a result of an acute cholangitis. Cholecystectomy for calculus had been performed four years before, and exploration of the common duct eighteen months prior to admission to the hospital. There had been intermittent attacks of abdominal pain, with chills and fever and almost constant jaundice, for four years. There was rapid enlargement of the liver and spleen, with ascites and clubbing of the fingers. Abdominal fluid was removed by tapping about every ten days. Roentgen-ray examination indicated a moderate amount of fluid in the right lower chest with displacement of the heart to the left. The patient died. A necropsy was performed. The liver weighed 2,394 gms. and contained numerous abscesses filled with greenish pus and varying in size from microscopic to the size of a hen's egg. The upper surface showed two openings through which the abscesses had ruptured through the diaphragm into the right lung. The ducts were patent and no stones were found. The spleen weighed 1,888 gm., and was smooth and rather soft. No gross or microscopic abscesses were found, and no evidence of thrombosis.

—R—

Massive Infection of Vaccinated Persons With *Bacillus Typhosus*

That typhoid vaccination produces a high degree of immunity is proved by army statistics. However, no proof has been available that such vaccination could protect against massive infection. A case of massive infection with *B. typhosus* is reported by Brooks C. Grant, Washington, D. C. (Journal A. M. A., Feb. 19, 1921) on account of the rarity of such an occurrence. A technician in the laboratory while working with a heavy suspension of living *B. typhosus* sucked approximately 0.5 c.c. of this culture suspension through the cotton plug of the pipet into his mouth. He immediately washed his mouth thoroughly, three times, with 50 per cent alcohol. This soldier was last vaccinated with triple typhoid (saline) vaccine, one year and two months prior to his infection. He was at once given 0.5 c.c. of triple typhoid vaccine in the hope of increasing his immunity. Four days after infection, he complained of slight headache, but had a normal temperature. No further symptoms appeared until the eighth day after infection, when he complained of slight headache and weakness. On the twelfth day a specimen of feces was collected and plated on Endo medium in the usual manner. The typhoid-like colonies appeared in a proportion of about 1:10 of *B. coli*. These were picked and proved to be *B. typhosus* by the customary sugar and serum reactions. Other symptoms did not appear.

Retinitis of Diabetes Mellitus

In the course of a statistical study of the clinical types of diabetes mellitus encountered in the Mayo Clinic, it was observed that retinal lesions had been found only in patients with the mild form of diabetes, usually associated with arteriosclerosis. This observation led to a more careful examination by H. P. Wagner and R. M. Wilder, Rochester, Minn. (Journal A. M. A., Feb. 19, 1921), of diabetes patients for retinal lesions. In about eighty cases of diabetes characterized by acute onset and progressively increased severity, the so-called diabetes gravis, no patient showed retinal changes. Retinitis occurred exclusively in diabetic patients with mild, easily controlled glycosuria in whom evidence of vascular disease was always present. At least twice the authors were able to make a diagnosis from the ophthalmoscopic findings alone in the temporary absence of sugar from the urine. They believe, therefore, that the retinitis of diabetes is the retinitis of cario-vascular, renal disease, modified in appearance and in stage of occurrence, possibly by the metabolic disturbances associated with the diabetes.

—R—

Gastric Analysis

Martin E. Rehfuess and Philip B. Hawk, Philadelphia (Journal A. M. A., Feb. 26, 1921), stress the point that gastric analysis has three important functions: (a) the determination of evacuation time or motor activity; (b) the determination of secretory activity and work, and (c) the presence of pathologic products which offer a clue to the type of disease present. Evidence is offered to show the marked variations of evacuation in health, and the same thing is true of the secretory variations. The author's studies have emphasized the minor importance of high acidities and the increased importance of low acidities in disease. Standardization of test meals is absolutely essential to a satisfactory understanding and interpretation of variation in health and disease. There is absolutely no value in complexity of test meals, which only introduces confusion to a subject already sufficiently complex. It is essential to realize the normal sequence of the digestive and interdigestive or rest phases, in order that the variations which occur in disease may be detected.

—R—

Chronic Systemic Infections and Their Sources

The increase of knowledge regarding the relation of acute and chronic local infections to more widespread and often disabling diseases, Ernest E. Irons, Chicago (Journal A. M. A., March 5, 1921), says has made possible the

prevention of much suffering and has been the means of restoring to health many of those who seemed in previous years to be condemned to recurrent disability and even permanent invalidism. The dental profession has contributed largely to this end by introducing methods for the recognition and cure of infections about the teeth. While experience teaches that the removal of alveolar abscesses frees certain patients from recurrences of their arthritis or other metastatic lesions, and while it is fairly clear why such a result is often to be anticipated, it is not so evident why many other alveolar abscesses remain symptomless and, so far as can be determined, wholly unassociated with metastatic disease.

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Juvenile Tabes

The literature on juvenile tabes is reviewed and summarized by Charles Rosenheck, New York (*Journal A. M. A.*, Feb. 26, 1921), and one case is reported. He is convinced that juvenile tabes may be considered a distinct clinical entity. Apparently it is the result of an hereditary syphilitic infection in the great majority of cases. An insignificant number of cases are due to syphilis acquired during infancy. Its symptomatology differs in no way from that of the adult type, but special characteristics in its onset and course are worthy of note. Early visual difficulties proceeding to blindness and optic atrophy are characteristic of fully 40 per cent of the cases. Lancinating pains, ataxia, and visceral or vesical disturbances affect only a small number. Trophic disorders are absent. Females are particularly vulnerable to the affection; as twice as many girls show the disease as boys. The ratio in the adult type is placed as ten men to one woman (Growers). The prognosis is excellent for life, but extremely poor for vision.

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Action of Cascara Sagrada

Hugh McGuigan, Chicago (*Journal A. M. A.*, Feb. 19, 1921), does not agree with the view usually set forth in text books that cascara sagrada is an ideal drug and fool proof. He would confine its use to those cases in which from 1 to 2 c.c. has a definite action. Larger doses would seem to do more harm than good. They may produce an inflammatory condition of the bowel, with pronounced nausea and griping. The nausea may be produced by the therapeutic doses recommended in some textbooks. It only rarely leads to vomiting. Cascara should be used only as a laxative, never as a cathartic. When more than 2 c.c. of the fluidextract is needed to produce a laxative effect, another drug

should be added or substituted. Small doses several times a day seem to give better results than the sum of these doses given in a single dose.

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The Relationship of High Blood Sugar to Furunculosis

In the case reported by WILLIAM THALHEIMER, Milwaukee (*Journal A. M. A.*, Jan. 29, 1921), the original complaint was of "attacks of multiple furuncles," and in investigating this condition it was discovered that the patient had a high blood sugar. The clue given by the high blood sugar was investigated further, and it is believed that the data indicate that this is a case in either the prediabetic stage, or else an unusually early stage of diabetes. This patient, aged 15, had an abnormal carbohydrate metabolism. In all probability the attacks of furunculosis were due to this abnormality in the carbohydrate metabolism, the clinical expression of which was the high blood sugar found originally. Although the blood sugar has never been reduced to within the usual normal limits, nevertheless, when it was kept down, and when the carbohydrate intake was also kept down, the patient was temporarily free of furuncles. For thirty days, the furuncles showed no tendency to clear up in spite of active surgical treatment. When, however, the patient was put on a carbohydrate-free diet, the furuncles promptly began to heal and at the end of a few days had completely disappeared. This case was evidently not one of diabetes, but simply a condition of furunculosis superinduced by an abnormally high blood sugar.

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Carcinoma of the Pancreas

Among eleven cases of carcinoma of the pancreas in which the diagnosis was confirmed histologically, FRANCIS H. ADLER, Philadelphia (*Journal A. M. A.*, Jan. 15, 1921) found six in which was found an ulcerating cavity leading from the tumor mass into one or more of the hollow viscera. The greatest number of ulcerations occurred into the duodenum and transverse colon, which might be surmised from the close proximity of these organs to the pancreas. This study suggests, furthermore, that ulceration of the abdominal viscera by pancreatic carcinoma is of frequent occurrence, and that it deserves consideration in order to arrive at a true understanding of the clinical picture and course of this disease.

—————R—————

Orchitis for Mumps

It is asserted by EDGAR G. BALLENGER and OMAR F. ELDER, Atlanta, Ga. (*Journal A. M.*

Pituitary Liquid

is the perfect preparation of Posterior Pituitary active principle. It, too, is without preservatives— $\frac{1}{2}$ c. c. obstetrical, 1 c. c. surgical.

***Corpus Luteum* (Armour)**

is true substance and will give results. Powder 2 and 5 gr. capsules and 2 and 5 gr. tablets.

Surgical Catgut* *Ligatures

Plain and chromic, regular (60 inch) emergency (20 inch) Iodized (60 inch)
Strong and sterile.



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A., Nov. 6, 1920) that the present method of terating orchitis caused by mumps is inadequate. This is shown by the large number of atrophied testes observed. The rational plan of procedure, which they have adopted, is to incise the tunica albuginea and relieve the pressure, and at the same time allow the escape of some of the toxic substances produced by the organisms which cause mumps. This must be done early in the disease before the necrotic process has become established, just as in strangulated hernia the operation should be performed early if resection of the intestine is to be obviated.

R

Diaphragmatic Hernia Diagnosed During Life

In the case cited by MILTON M. PORTIS and SIDNEY A. PORTIS, Chicago (*Journal A. M. A.*, Nov. 6, 1920) the diagnosis was based on the roentgenoscopic findings. On giving barium in buttermilk, the stomach was found in this pouch and to its left the splenic flexure of the colon was seen. This was more apparent when the patient was in the reclining position. The stomach did not show an hour-glass appearance. Food dropped readily from the part above the bow line of the diaphragm into the part of the stomach below and the stomach emptied in normal manner. The duodenal bulb was normal. The liver shadow was normal and there was no tenderness over the appendix or the gallbladder.

R

Leukanemia

Leukanemia, according to DOUGLAS SYMMERS, New York (*Journal A. M. A.*, Jan. 15, 1921) is characterized clinically by an extremely rapid course and by changes in the blood, bone marrow, spleen, liver and lymph nodes that partake both of the nature of pernicious anemia and myelogenous leukemia, the causative agent acting on the hematogenic centers of the bone marrow in such fashion as to produce marked numerical increase in those primitive cells which

represent the precursors of both the erythroblasts and the grandular leukocytes. The primitive cells in question are myeloblasts, as shown by their morphology and by the fact that they respond to the oxydase test. Histogenetically, pernicious anemia, myelogenous leukemia and leukanemia are closely related conditions, and represent different quantitative responses on the part of the bone marrow to regenerative stimuli acting on the same metrocyte, namely, the myeloblast. Leukanemia is probably not an independent disease but one of a group of rapidly progressive derangements of the blood-forming tissues due to infection.

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Transfusion

PAUL M. KRALL, M. D., Kansas City

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

The introduction of isotonic solutions of inorganic salts by physiologists for remedial and prophylactic measures has for years played an important role as a life saving measure, especially so in the hands of our surgical confreres, in cases threatened with shock or patients already in shock. The principle primarily involved was to overcome fluid loss and increase "volume circulation" where a considerable quantity of blood is lost. The substitution of inorganic salt solutions for blood lost is so transitory in its effects due to the rapidity with which such solutions when introduced into the circulation are lost through the skin and kidneys, that the mechanism correlating the interaction of the several factors maintaining under physiological conditions normal blood pressure, is either not sufficiently stimulated, or the response to the stimulus is so transitory that the therapeutic value of intravenous saline solutions in cases where considerable quantities of blood are lost, is often quite discouraging.

However, in the treatment of shock incident to factors other than hemorrhage, and shock associated with, or occasioned by the loss of blood in amounts well within the limits of relative safety, if the time interval between injury and treatment is not too great, the effects of saline transfusions are most encouraging.

The relative therapeutic value of inorganic salt solutions, originally, was based more or less upon the length of time perfused hearts remain active under the influence of a given solution. Experimentally the most efficient solution, is that solution which in its chemical composition approaches the relative proportions of the sev-

eral salts as they occur in normal blood serum.

C. Ludwig in 1868 first employed the method of artificial circulation in excised organs, in studying their survival through the use of the primitive physiological solution, consisting of a dilute solution of NaCl., 0.5-0.75%.

Later, Ringer made a series of experiments to show that the addition of sod bicarb., calcic and potassic salts to NaCl solution effectively prolonged cardiac activity, which has since been confirmed by all who have taken up this subject.

Locke in 1895 showed by new work that the addition of a small quantity of glucose to Ringer's solution rendered it more capable of maintaining cardiac activity.

Gothlin in 1902 carried out some detailed experiments on the chemical conditions of cardiac activity in the excised heart of the frog. He prepared a complex solution of chemical substances, including all those which chemical analysis has shown to be present in the blood serum, viz:

NaCl 0.65 per cent.
NaHCo3 0.1 per cent.
Na2HPo4 0.0009 per cent.
Cl 0.01 per cent.
CaCl2 0.0065 per cent.
NaH2Po 40.0008 per cent.

He found that on replacing the blood by this solution the cardiac activity was maintained unaltered for many hours. At the same time, as a matter of control, substitution of Ringer's solution for Gothlin's solution, both rhythm and type of beat were modified. Therefore, the relative merits of the several solutions of inorganic salts, is quite obvious. However, it does not follow necessarily that the use of inorganic salt solutions intravenously is the most logical therapeutic measure in cases with extensive loss of blood, nor the safest way of aug-

menting volume within the blood vascular system, in cases in profound shock, with extensive loss of blood.

In 1916 the writer witnessed an extensive abdominal operation in a patient subjected to the not infrequent pre-operation starvation, in whom there was a manifest acidosis at the time of operation.

The operation was time consuming, with considerable loss of blood. At the conclusion of the operation the patient was in profound shock. Intravenous NaCl (800c.c.) for the relief of shock was resorted to, before the patient was removed from the operating table. During the night, the patient developed a right sided hemiplegia and died the following morning. Post mortem examination revealed a plug of fibrin in the corresponding artery and an extensive cedema of the brain. With such a post mortem picture one could not help but question the possible if not probable part played by the salt transfusion, in the causation of the patient's death.

Experimental work on animals by the essayist, lead to the following conclusions:

Normally, the resistance of R.B.C. to varying percentages of NaCl solution varies but slightly. The average low limit is .35% so that the time honored .9 of 1% NaCl solution has a margin of safety between point .35% and point .9%.

RESISTANCE OF R.C.B. IN EXHAUSTIVE STATES WITH OR WITHOUT LOSS OF BLOOD IN THE PRESENCE OF ACIDOSIS

Experiment No. I

A male sheep of a rather ambitious nature, was allowed to run at large and at the same time chased by two colored employees of the institution, until the animal was exhausted to the point where it refused to be chased. The animal was returned to the institution, bled from the jugular, and the R.B.C. resistance determined; in this instance, a 0.9 of 1% NaCl solution was absolutely and completely hemolytic (hemolysis complete, normal safety margin, .4 of 1%).

Experiment No. II

Sheep No. 2, female, less ambitious and would not submit to the degree of exhaustion

of sheep No. 1, when bled, showed complete hemolysis up to .8 of 1% NaCl solution.

Experiment No. III

A series of rabbits somewhat undernourished, put through a pre-operative starvation period for three days, were anesthetized, and during the course of the anesthesia, were bled from the ear vein; a final bleeding from the heart after the animal was pretty well in shock gave findings in R.B.C. resistance, similar to the sheep experiments.

The degree of the disturbance in the red blood corpuscles' resistance in the rabbit experiment depends upon the length of time the anesthetic was administered, the amount of blood lost, and the degree of shock present. Well fed rabbits as control, kept under the anesthetic for three hours without loss of blood, showed little if any disturbance in the red blood corpuscles' resistance to physiological salt solution.

These experiments seem to indicate that with patients in profound surgical shock, in which considerable quantities of blood are lost intravenous physiological salt solution in large quantities (800 to 1200c.c.) may possibly be a responsible factor in the causation of death in such instances as the particular case cited.

The obvious objections to the intravenous use of considerable quantities of physiological salt solution in patients in profound shock and loss of considerable blood are: (a) Mainly, the inability of the patient to retain the solution long enough, and, (b) Possibly, disturbed resistance of the patient's red blood corpuscles to physiological salt solution.

THE INTRAVENOUS USE OF COLLOIDAL SOLUTIONS

James J. Hogans, M.D., M.R.C.S. England, endeavoring to overcome the first objection to the use of physiological salt solution, conceived the rather ingenious idea that possibly the addition of some colloid to the salt solution might obviate this particular objection.

The results of his experiments led to the use by the profession, of the so-called Hogans' gelatin solution, which consists of 25 grammes of the purest gelatin, 1½ grammes of sodium chloride and 100 c.c. of distilled water, sterilized at 124 degrees C for one hour. This solution is kept on ice and whenever the occasion

indicating the use of intravenous solutions arises, the transfusion mixture proper is prepared by taking the flask containing the gelatin, warming until it melts, when it is added to a sterile solution consisting of 900 c.c. of 0.9 of 1% sodium chloride solution, to which has been added 2 grns. of sodium carbonate crystals, all warmed to body temperature.

Cannon, during the late war advocated a somewhat similar colloidal solution, in which he employed gum acacia instead of gelatin, which was rather extensively used in the American Army, in the treatment for the prevention of shock, as well as patients in shock.

The relative safety with which inorganic salt solutions or colloidal solutions may be administered intravenously depends upon the patient's condition. The writer during his service as pathologist to Base Hospital 28 while in France, recalls two cases coming to post mortem that died following terrific chills, incident to transfusion. Both cases had extensive gun shot wounds with overwhelming infections, and at the same time had lost considerable blood. In both instances at post mortem, recently ruptured spleens were encountered with bright red blood in the peritoneal cavity. (In both instances, the patients had been in the hospital six days prior to transfusion.)

Citation of the preceding cases emphasizes a most important factor—in exhausted, septic and depleted cases no solution whatever its nature, should be used for transfusion purposes, which is known to be frequently followed by a chill. I have never yet seen a patient escape at least some manifestations of chills and fever that received colloidal solutions intravenously in quantities of 500 or more c.c.

However, the recent work of Gasser and Erlanger in their studies in secondary traumatic shock dealing especially, with the relation of measures to restore fluid volume in shock with special regard to the merits and defects of the liquids used, have, I believe materially improved the efficiency of the gum acacia solution. A summary of their work on animals traumatized by holding the arterial pressure down to 40 m.m. Hg. for two hours and fifteen minutes, by partially occluding the inferior vena cava, 48% died within 48 hours. When treated with 6% gum in 2% sodium bicarbonate 12 c.c. per

kilo body weight 45% died within 48 hours, when treated with 25% gum, followed by 5% sodium bicarbonate, 5 c.c. of each per kilo body weight, 56% died within 48 hours. When treated with 25% gum followed by 18% glucose, 5 c.c. of each per kilo body weight, 45% died within 48 hours. When treated with 25% gum in 18% glucose, 5 c.c. per kilo body weight, 24% died within 48 hours. These results are taken to indicate that bicarbonate and the higher viscosity of gum solution are somewhat harmful, at least, in traumatized animals; that the harm of strong viscid gum can be avoided in part through the osmotic action of hypertonic glucose subsequently injected but not by bicarbonate, and that when the hypertonic gum and the hypertonic glucose are given simultaneously and slowly so as to all together avoid the period during which the high viscosity of the gum is hampering the circulation, a maximum saving of life can be effected.

The beneficial results are presumably due to the internal transfusion affected by the hypertonic solutions, to the maintenance of the increased blood volume by the colloid, and possibly to the other properties of the gum acacia, to the action of the hypertonic solution on the heart and blood vessels, and the specific action of glucose on nutrition in general, and on that of the heart muscle in particular.

In all events the advisability of preventing chills following transfusions in exhausted, septic and depleted patients, cannot be too strongly emphasized.

BLOOD TRANSFUSION

It is some years since transfusion of blood was first resorted to, as a therapeutic measure, and then mostly as an emergency measure and consequently seldom employed.

The recent simplification of technique has decidedly placed blood transfusion into popular favor, and the physician who is willing to familiarize himself with the principles involved, and the actual operative procedure, will find blood transfusion a most valuable therapeutic asset.

The obstacles in blood transfusion concerns not so much the difficulties of the operation, but the fears relative to the proper selection of the donor.

Landsteiner first drew attention to the action of the serum of one individual upon the corpuscles of another individual of the same species. It was found that the serum of one animal hemolyzes or agglutinates the corpuscles of another animal of the same species. For this we have the term "iso"-agglutination and "iso"-hemolysis.

Landsteiner, by studying the interaction of serum and corpuscles of different human beings, was able to classify them into groups A, B, and C.

Moss in 1910, working along the same lines, worked out four groups, depending upon the ability of the serum to agglutinate the corpuscles of other individuals, and of the corpuscles to be agglutinated by the serum of other individuals. According to Moss:

Group I. Serum agglutinates no corpuscles. Corpuscles are agglutinated by the serum of Groups 2, 3 and 4.

Group II. Serum agglutinates the corpuscles of groups 1 and 3. Corpuscles are agglutinated by the serums of groups 3 and 4.

Group III. Serum agglutinates the corpuscles of groups 1 and 2. Corpuscles are agglutinated by the serums of groups 2 and 4.

Group IV. Serum agglutinates the corpuscles of groups 1, 2 and 3. Corpuscles are agglutinated by no serum.

The serum of a given individual may or may not contain an isohemolysin; but if an isohemolysin is present, it acts in accordance with the laws governing the action of the iso-agglutinins. Thus, the serum of Group I, which contains no iso-agglutinins, never contains an isohemolysin. The serum of Group II may or may not contain an isohemolysin, but if present it can act only on the corpuscles of Groups I and III. If the serum of Group III contains an isohemolysin, it can act only on the corpuscles of Groups I and II, while isohemolysins occurring in the serum of Group IV, may act on the corpuscles of Groups I, II and III.

Consideration of this classification shows, that if transfusion is performed between members of the same group, the danger of iso-agglutination and iso-hemolysis is obviated; but if the patient and the donor belong to different groups, the possibility of danger is present.

The mode of transfusing blood from donor

to donee resolves itself into one of two methods: (1) The indirect method, where anti-coagulins are used, and (2) The direct method, in which the blood is directly transferred from donor to donee.

Recently the so-called sodium citrate method in which the blood as drawn is mixed with sodium citrate in physiological salt solution, so that the final mixture contains 0.2 of 1% sodium citrate, has met with considerable favor. This method is simple from the standpoint of operation, and has but one objectionable feature, and that is, regardless of technique, chills follow citrated blood transfusions in from 20 to 40% of the cases transfused (where 500 c.c. or more is introduced).

I have already pointed out the possible danger of chills in certain types of cases, incident to transfusion, and I might well state that one of the deaths with ruptured spleen, was transfused with citrated blood.

The reasons for the reaction following citrated blood transfusion, may be briefly stated: (1) Hemolysis and agglutination; (2) Toxic substances developed in the blood on remaining outside the body—supposedly due to platelet destruction; (3) Chemicals, such as anti-coagulins, and physiological sodium chloride solution, and (4) sensitization and anaphylaxis; (5) Incompatibility between the white corpuscles of donor and donee.

If the probable reasons enumerated responsible for reactions following transfusion of citrated blood may be taken as at least theoretical possibilities, then that method permitting transfusion safely, in which the probable factors responsible for reactions associated with the citrated method may be obviated, is not only the logical but the rational method to employ.

Then it follows that the direct method in which (1) The blood is outside the body a minimum length of time (2) passes through a minimum of foreign material, (3) in which anti-coagulins are not necessary, (4) foreign material not even physiological salt solution is introduced, (5) is applicable to any case and in any disease, and (6) with which it is possible to transfuse any amount, with a minimum reaction, not only becomes the method of choice, but is the logical method for blood transfusion.

However, in defense of the citrate method,

I wish to emphasize that the superiority of citrated blood transfusions over all other substitutions for artificial transfusion solutions, is so apparently obvious that in deference to the reactions incident to its use, there should be no hesitancy on the part of the operator to employ the citrate method, whenever the direct method is not applicable.

With the syringe method as popularized by Lindeman the writer has as yet been fortunate in not having chills following any of his transfusions. However, occasionally there is some elevation of temperature, especially so, where large amounts are transfused.

Lindeman, transfusing amounts of 1000 c.c. and upwards, in 214 consecutive cases, failed to note even the slightest manifestations of rigors following transfusion.

EFFECTS OF TRANSFUSION

The effects of blood transfusion may be briefly stated as follows: (1) Restoration of the bulk of the circulating fluid; (2) Provision of oxygen and assimilable pabulum for the tissues; (3) Increase of the coagulability; (4) Stimulation of the hematopoietic organs, and (5) Increase of resistance to infection by its antitoxic and bactericidal properties.

INDICATIONS FOR BLOOD TRANSFUSION

Transfusion of "vital red blood" is a life-saving measure and is the logical means to employ, in all cases where the restoration of the bulk of the circulating fluid, incident to hemorrhage, becomes a therapeutic measure.

When the provision of oxygen becomes a vital issue, notably in carbon-monoxide poisoning, blood transfusion is an absolute indication.

In primary anemias as well as in secondary anemias incident to prolonged wasting diseases, —infectious, constitutional or malignant.

In septic and septicopyemic states where increase of resistance to infection by increasing the antitoxic and bactericidal properties of the patients' blood is desired; the writer has seen most brilliant results following blood transfusion in these later conditions. Brilliant results in purpuric states frequently follow blood transfusion.

CONCLUSION

1. The chief objections to inorganic salt solutions intravenously are, (1) The short time the salt solution remains in the circulation, and (2) The possible destructive effects upon the red blood cells, in at least certain types of cases.

2. Solutions of acacia and gelatin are the most efficient artificial solutions for transfusion purposes, but discretion and care must be exercised as dangerous reactions may be produced, with both gelatin and acacia.

3. Transfusion of "Vital red blood" is a life saving measure, not only in hemorrhage where the restoration of blood volume is a vital issue, but in diseases where the patient is in need of oxygen, nutritive elements, coagulins, antitoxins and bactericidal elements.

4. Accurate typing of donors and donees before blood transfusion is a recognized necessity.

5. The main objection to the citrate method of blood transfusions is chills and fever; however, admittedly the most convenient method.

6. The direct method of blood transfusion is unquestionably the most efficient method.

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—————R—————

What Not To Do In Bone Surgery

H. L. REGIER, M.D., Kansas City

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

There is perhaps no other subject in surgery where the opinions of surgeons are so divided as on the subject of operative treatment of fractures. Usually when there are divided

opinions among surgeons as to the treatment on any subject or subjects we will find that results in the past have not been satisfactory.

The object of this paper is not to burden you with arguments as to who is right and who is wrong because I do not know; nor is it the object of this paper to report anything new. In the last ten years we have had an opportunity to see, treat, and take care of many fractures, whose nature were of all kinds and descriptions; and we have come to the conclusion that it is equally as important what not to do as what to do in bone surgery. In this paper I wish to relate a few facts that have been a great help to us.

1. We do not use anything but soap and water in preparing the field for operation.

2. Do not depend on gloves.

3. Do not operate on bone cases that have any focal infection.

4. Do not operate unless patient has had a Wassermann made.

5. We do not operate on any case unless an x-ray plate has been taken.

6. We do not close wounds without drainage.

7. We do not use anything to hold the bones in place that may act as a foreign body.

8. We do not use a closed cast.

And, now, enlarging upon these points in successive order:

1. The least the skin is disturbed the better, Iodine, McDonald solution, and even alcohol may irritate the skin to such an extent that it may form blisters. These blisters invite infection which may extend to or into the wound. Especially is this true if a cast is used around the operative field.

2. Do not depend on gloves. The hands should be cleaned before being placed into the gloves in such manner that one would not be afraid to perform the operation without gloves. The nature of this work in bone surgery is so different from any other work that one seldom escapes without a puncture or even a torn glove.

3. Do not operate on bone cases that have any focal infection. We find that the most important of these infections to be considered are: An infected tooth, teeth, or gums. As a complication these seem to give us more trouble than any other.

4. Do not operate on any case unless a Wassermann has been made.

5. We do not operate on any case unless an x-ray plate has been taken. From an anatomical standpoint the x-ray often reveals a weak spot in the bone and this may have materially entered into the cause of the fracture of the bone. Among such to be considered are the tumors and granulomas.

6. We do not close wounds without drainage. This to us has been proven to be the most satisfactory procedure. Again taking it from an anatomical standpoint we can readily see why this is true, as the bones are hidden and surrounded by large muscles, fascia, and skin. We further know that an injured muscle will bleed. This blood forms a good culture media. Without a drainage tube a wound closes itself. I may say further, and this holds good in any other instance where drainage is being used, that it is equally as important to know when to remove a drainage tube as to place a drainage tube into the wound.

7. We do not use anything to hold the bones in place that may act as a foreign body. We have found that plates, wires, etc. have given us considerable trouble at times. Chromic catgut was used wherever we could. In fact every bone in the body has been successfully sutured with catgut. And we found that where used it gave the most satisfactory results.

8. We do not use a closed cast. And this for obvious reasons. The cast is split allowing the limb to swell without being constricted. The limb can be watched from day to day. The drainage has a chance to escape. In other words we only use a cast as we would a good fitting splint.

R

Gall Bladder Diseases

H. L. SNYDER, M.D., H. H. JONES, M.D.,
Winfield

Read before the Kansas Medical Society at Hutchinson,
Kansas, May, 1920.

This paper does not purport to cover the whole subject of Gall Bladder diseases, but rather takes up those points particularly about infections, which have been of unusual interest to us.

Diseases of the gall bladder are always due to infection, infection usually bacterial, at times

possibly chemical. Bacterial infection frequently is easily traceable to its source as a result of typhoid, appendicitis, a group of boils, chronic tonsillar infection or other focal infection. Whether or not changes in the bile in themselves may have some effect on the organ or whether, by lessening the normal bactericidal power of this fluid, other infections come in, we can only conjecture. The experiments of some investigators have been to produce gall bladder disease from an emulsion of the gall bladder wall in which they could demonstrate no evidence of microbic infection necessarily makes one believe there is some chemical element reposed in the tissue that has to do with the pathological changes found. Infections frequently occur early in life. We have been able to demonstrate it following acute attacks of enterocolitis in children and have followed those children through subsequent attacks of acute biliary disturbance attended with enlarged liver, definite localized tenderness and the usual classical symptoms. Many of the cases develop their stones between twenty and thirty and the majority of them in fact, we think, are formed before thirty-five.

The influence of trauma and stasis is manifested in disturbances following pregnancy. We do not know the effect of diet for there is no definite means of determining what occurs chemically in the bile tract when a lobster salad is ingested. It is certainly not out of order to surmise. A heavy meat diet with rich sauces and condiments naturally predispose to catarrhal disturbances in the mucous membranes, hence the likelihood of making more possible infections in the biliary tract. The gall bladder disturbances occurring co-existently with pancreatitis and chronic peptic ulcer might raise the question whether they are primary or secondary. Our conception of gall bladder disease is vastly different than when surgery was done for gall stones primarily. The gall bladder suffers from the same type of infections, and undergoes the same changes as the appendix. Likewise the incidence of gall stones is little if any more frequent than the occurrence of concretions in the appendix.

The symptoms of gall bladder disease are best grouped according to age of the patient, this grouping being most convenient because of the

different pathological lesions incident to the different periods of life. The child up into his teens suffers from the acute catarrhal biliary infections, attended with the usual group of symptoms of nausea, vomiting, constipation, pain and localized tenderness, rarely jaundice. From twenty to thirty-five most of the cases of infection arise. In this group we see oftentimes a continuation of the symptoms of childhood, with toxemia, and the chronic disturbances appearing. During this period we have the first symptoms of cholelithiasis, and the attendant attacks of biliary colic. From thirty-five on, we may have appearing the acute suppurative conditions, with the various necroses that occur because of intense infection with obstruction. And likewise from this age on, the cases of carcinoma develop; these always associated with stones.

The symptoms of gall bladder diseases without stones may be classified as follows: First, toxemia, which is characterized by depression, lassitude, disturbance, usually hyperacidity, constipation and, if the condition is acute, pain and, where pain is acute, vomiting. There is a direct relationship between pain and the peritoneal involvement.

Digestive disturbances are more or less variable in type. There is no particular food relief, there is increased distress produced by greasy things, and things that produce gas. The most characteristic thing about this patient is that he feels best when he arises in the morning after a period of fasting. His distress is more or less constant during the day, beginning immediately with breakfast. Constipation is the rule.

The skin changes may vary from a slight icterus to very dark discoloration. The patient with acute obstruction, either from stones or inflammatory edema in the common duct, necessarily is of the more distinct yellow tinge. Frequently, however, jaundice is absent, for many of the acute infections are confined to the gall bladder itself and the common duct does not suffer, whereas the icterus of chronic disease is gradually acquired over a period of months or years. The symptoms of acute suppurative disease are so obvious, they will not be given in this paper.

Physical examination reveals the skin condi-

tion, a definite point of tenderness, often of pain, over the gall bladder, and the liver is firm and tender. X-ray examination of the alimentary canal is of value in eliminating lesions of the stomach and duodenum and it is usually possible. The exception would be in the case of peptic ulcer, with adhesions to the gall bladder, in which condition there is frequently co-existent cholecystitis. The stomach findings are variable, hyperacidity in the younger; hypoacidity in the older cases. At times bile is found.

Treatment: Gall bladder disease once established is not apt to resolve and like appendiceal diseases is best considered always a surgical condition whether operation is required or not. Chronic infection, definitely established gall stones and malignant diseases of the gall bladder, each call for the same procedure, cholecystectomy. Drainage of the gall bladder in chronic infections promises relief for a few months at most. Likewise removal of stones with drainage leaves behind the original source of trouble, the infected gall bladder. It, of course, is obvious that anything short of cholecystectomy for malignant diseases would be futile. Certain acute infections with marked bile duct involvement or pancreatic disease may call for a preliminary drainage. If after a reasonable time, toxemia or local symptoms persist, cholecystectomy should be done.

Results: In our series of cases which now number over three hundred, the results have been satisfactory. It has been necessary to reoperate two cases, in each case because of pancreatitis. The first one developed a large accumulation of fluid in the lesser peritoneal cavity and when the abdomen was opened many areas of fat necroses were apparent. A tube was inserted through the foramen ovale and a serous bile stained fluid drained for several days, after which the wound closed without infection. Subsequently, because of adhesions about the pylorus, this patient developed an obstruction and a posterior gastro-enterostomy was done for drainage. Since then she has been able to teach, although she has more or less stomach disturbance when indiscreet about diet.

The other case, two years following cholecystectomy, began having periodical attacks of

pain, severe in character, followed after the second attack by diarrhea due to pancreatic disease. It was deemed advisable to operate this patient believing that there was a stone in the ampulla of Vater. When the abdomen was opened, however, we found the head of pancreas markedly thickened, very hard, but no stone in the common duct. The common duct, contrary to our expectation, had not dilated, was very little larger than a goose quill. It was opened and a T tube inserted, kept in place four weeks with very definite relief of symptoms. The after result in this case was not satisfactory and she is now bedfast with definite evidence of pancreatitis, periodical attacks of severe pain and an associated arthritis evidently due to pancreatic infection.

The other cases practically without exception have had relief from toxemia, from pain, from digestive disturbance and constipation. The skin is clear and the general result quite satisfactory. Many of these cases were operated during the acute inflammatory stage, some with necrotic gall bladders, and while the convalescence in these cases was prolonged, the final results were equally as satisfactory, the rule being to remove the gall bladder. In our experience the risk is not greater than in appendicitis showing like pathology, the appendix having some advantage in that the acute suppurative and gangrenous cases occur early in life, whereas the acute suppurative and gangrenous gall bladders occur after middle life. In our series it has been necessary to reoperate three cases that had had cholecystectomy with drainage for stones, due to reformation of stones, with an equal number of cases showing the same condition previously operated by other surgeons. We have had four cases of carcinoma of the gall bladder. In each case it was associated with stone. We have had a number of cases of papilloma of the gall bladder. I am not able to say just how many. We have had no recurrence of trouble following papilloma. The average life in carcinoma was six months after operation. We believe cholecystectomy in experienced hands offers as safe a procedure as cholecystotomy, promises more definite permanent relief and a shorter convalescence.

Pathology: One of the proofs of gall blad-

der surgery lies in the microscopic study of the gall bladder.

All gall bladder lesions can be classified generally as inflammatory processes, the degree of which varies with the individual case. Of the inflammatory type, we have the acute, subacute, chronic, hemorrhagic, papillary, suppurative, and carcinomatous. The carcinoma of the gall bladder is usually developed upon a chronic inflammatory process of long duration. In the very earliest form there is a mild inflammatory process in the mucous membrane, giving a velvety appearance. This lesion may entirely disappear or may go over to a scar formation. Scarring gives a broadening of the base of the villi with desquamation of the tip. This submucosa becomes infiltrated with inflammatory cells which go to form the scar tissue, this process extending into the gall bladder wall, making it fibrous, neither contracting nor expanding. In the presence of stones the gall bladder dilates, the various layers thinning out but remaining intact. There is very little inflammatory reaction in the wall of the gall bladder but the tissues are apparently stretched to the point where they never regain their normal functions.

Of the bacteriology of the gall bladder, the organism seems to be located below the mucous membrane, usually the contents of the bladder are sterile, the submucosa harbors the organism and once infected a gall bladder rarely returns to normal. The changes in the gall bladder bear direct relationship to the length of infection and can be classified along with symptoms according to the age of the individual.

—R—

LAW FOR THE DOCTOR

LESLIE CHILDS

Validity of Contract to Furnish Patient Medical Services for Life

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A careful search of the books discloses but two cases involving the legality of an agreement, between a physician and his patient, by which the former agreed to render medical services to the latter for life. The first is an English case, *Dent vs. Bennett*, 7 Sim. 539, decided about 1838, in which it was held that such a contract was void, as against good public policy. The reasons for this conclusion

were stated by the vice-chancellor in the following language:

"It is plain that the existence of such an agreement is a direct premium to the medical adviser to accelerate that death upon the happening of which he is to have £25,000, and it is in vain to say that in fact it did happen that the party who was to give the £25,000 did live four or five years after the agreement.

"You must look at the agreement as it stood at the time it was made; and it must be admitted that the human mind is so constituted as that this agreement might be a temptation to some persons to do the very thing which it is obvious it was the duty of the party who took the agreement not to do; and my deliberate opinion is that it is totally void in point of law for that reason."

The second case referred to was the American case of *Ziegler vs. Illinois Trust & Saving Bank*, Exr., 245 Ill. 180, decided in 1910, nearly a hundred years later, which may in a measure account for the opposite views entertained by the two courts. Though in justice to the earlier court, it may be said that the evidence of the claimant's good faith was not nearly so convincing, nor were his hands comparably as clean as were his prototype's in the *Ziegler* case in the following century.

The facts in the *Ziegler* case were substantially as follows: Dr. Ziegler, a practising physician and surgeon, in the city of Chicago, was employed professionally by Mrs. McVicker sometime during the fall of 1899. A few months later a contract was entered into between them in which it was stipulated that Dr. Ziegler was to be paid \$100,000 out of her estate after her death; the consideration being that Dr. Ziegler should give her such medical attention as she should require during the remainder of her lifetime. At this time Mrs. McVicker was 78 or 79 years old. About five years later she died, at Pasadena, Calif., and, when the doctor attempted to enforce the contract, it was disputed by the executor of the McVicker estate.

Suit was filed on the contract; a judgment for the \$100,000 was given the doctor in the Circuit Court; this was reversed in the Appellate Court, and the case was afterward taken to the Supreme Court for final adjudication.

The evidence was undisputed that the contract had been openly entered into after Mrs. McVicker had consulted a number of her friends; in fact, it showed that she had insisted upon the contract in the first place; that it was her idea; that she was a woman of education and culture, owning large property interests which she personally managed and supervised; in fact, an exceptionally shrewd woman.

It was also shown that the doctor attended her constantly during the period of the contract; giving her the right to his attention at all times to the exclusion of his other patients. In summing up, the Supreme Court said in part:

"It is urged that this contract is void chiefly for the reason that it furnishes an incentive to appellant (the doctor) to shorten the life of Mrs. McVicker by neglect, or improper treatment, or by the commission of the crime of murder. Each argument made by appellee (the executor) in support of this contention involves a breach of the contract, and is not founded upon the performance of it. It cannot be seriously contended but that, in order to comply with the terms of this contract and be entitled to receive the benefits of it, the appellant (the doctor) was bound to give Mrs. McVicker the best treatment within his power and skill, and to prolong her life as long as possible. There can be no doubt that a contract to commit murder or any other crime, is void, as against public policy. This contract does not contemplate the commission of a crime, or the doing of anything which is unlawful or contrary to good public morals. Even if it be conceded that the contract, under its terms, offered some incentive to appellant (the doctor) to commit a crime, that would not necessarily render it void."

Thereupon the Supreme Court reversed the Appellate Court, affirming the judgment of the Circuit Court. Holding that the contract was valid and binding, and that as the doctor had fulfilled his part of the contract he was entitled to the consideration, namely the \$100,000.

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Dr. Thomas G. Orr

DEPARTMENT OF SURGERY

PERFORATION OF DUODENAL ULCER

The case for discussion today presents one of the most important surgical conditions that may be classified with the emergencies. A matter of a few hours in this condition may mean the difference between life and death. This patient was brought to the hospital from a near by town about twenty miles distant. He was first taken to the railroad station in an automobile and then from the station here in a taxi to the hospital. He is forty-five years of age and a farmer by occupation. Twenty-three hours before he came to operation, at 7 o'clock in the evening, he had a sudden severe pain in the epigastrium. Following this he was nauseated and vomited. The pain caused profuse sweating. The vomiting did not relieve the pain which persisted in its severity for two hours after which time he called a physician who gave him morphine. The pain radiated across the abdomen. He noticed that the abdomen was very hard. During the night the pain persisted more or less and the next morning he felt worse. He was seen again by the physician who advised him to go to the hospital.

There is little of importance in the past history except that he had stomach trouble seventeen years ago with burning and gnawing sensations in the esophagus and epigastrium. He had some nausea and vomiting at times for three months. He gives an indefinite history of some gastric trouble at times since then which has not been severe.

On examination the following was noted: temperature 99.4, pulse 80. The patient appears to be in considerable pain but his condition is good. We are unable to obtain a very accurate and connected history because of the influence of morphine. The abdomen is very tender and rigid throughout. This tenderness is most marked over the appendix region. There is also marked tenderness in the right epigastric region and along the right costal margin. There is no obliteration of the liver dullness. The abdomen

is scaphoid. The leucocyte count is 18,000 with 97% polymorphonuclears. The blood pressure is 110 systolic and 70 diastolic. The urine is negative. The diagnosis was made chiefly from the physical findings because of the unsatisfactory history obtained from the patient. Acute cholecystitis, perforation of gastric ulcer and perforation of the appendix were the conditions chiefly considered. Because of the greatest tenderness and rigidity over the appendix the diagnosis of acute perforation of the appendix with spreading peritonitis was made.

In less than two hours after he arrived at the hospital he was taken to the operating room. Under ether anesthesia an appendix incision was made. As soon as the abdomen was opened it could readily be seen that there had been a mistake made in the diagnosis. A flakey purulent exudate was pouring down from above over the cecum and into the pelvis. The appendix was normal. This wound was immediately closed with a cigarette drain in the pelvis and a small rubber tube in the right kidney pouch. A high right rectus incision was then made.

The entire upper abdominal cavity was filled with flakey mucoid exudate. The gall bladder was distended. When the upper part of the duodenum was exposed bile began to appear. An opening 1 mm. in diameter was found in the upper surface of the duodenum $1\frac{1}{2}$ cm. from the pylorus. This opening was closed with a double row of small chromic gut sutures. A cigarette drain was placed down beneath the gall bladder, another along the edge of the liver and a small rubber tube over to the right abdominal gutter to meet the one placed from the wound below. The operation lasted forty-five minutes. The patient was in very good condition when he left the table.

Following the operation the temperature never rose higher than 100.4 and the highest pulse rate was 92. The patient normally has a pulse of 56 to 60. The two rubber tubes were removed in seventy-two hours. For a few days the purulent discharge was profuse. At no time was there any distention. A few hours after the operation he was given liquids in small frequent doses. He did not have any post-operative vomiting. Immediately after the

operation he was given 500 c.c. of salt solution by hypodermoclysis. On the second day he was given milk, third day a small egg-nog and the fourth a soft cooked egg and breakfast food. His recovery was uneventful and rather remarkable considering the duration of the peritonitis. One month after the operation he left the hospital with the wound healed except two small granulating areas. A short time before his discharge he complained of burning pain in the epigastric region.

I should like to pass over hurriedly the etiology of ulcer. According to Mayo Clinic Statistics, peptic ulcers in general are about three times more frequent in men than women. Of these peptic ulcers the number found in the duodenum is about four times that in the stomach. Just why they are more common in the duodenum is not known. The real cause of these ulcers is somewhat speculative although they are probably of chemical or bacterial origin. There has been much evidence advanced by Rosenow and others that they begin as infections.

We are chiefly concerned today with acute perforating duodenal ulcer and not the chronic slow forming perforations that become walled off as they perforate or form localized abscesses. Duodenal and gastric ulcers are so closely allied in many of their aspects that it is impracticable to consider one without the other. The early symptoms are typical. The patient says he has had a sudden pain in the epigastric region which is almost unbearable. If seen early, he is usually lying doubled up or writhing in pain with increased pulse rate, sweating and general collapse. Sometimes but not always, there is nausea and vomiting. I have seen two such cases within one-half hour after perforation. The abdomen when examined is broad-like in the epigastric region. I do not know of anything that produces such a marked rigidity in such a short time and without previous warning. The whole abdominal wall is held rigid. If in a patient who is to all outward appearances well and going about his work, there suddenly develops a stabbing excruciating pain in the epigastrium accompanied with collapse and marked abdominal rigidity, the diagnosis of perforated ulcer is almost positive. Later in the progress of the disease the

diagnosis, because of the change in the physical findings, may not be so clear. If the patient gives an accurate history of onset, with a past history of gastric disturbances, one can be almost sure of the diagnosis. Mr. Maynard Smith has suggested in the *Lancet* of March 25th, 1906, that the symptomatology may be divided into four stages: (1) the period of collapse; (2) the latent period (accentuated by administration of morphine); (3) the period of return of symptoms quickly merging into (4) the period of septic peritonitis. The pulse rate in this condition, as in all other acute inflammatory conditions in the abdomen, cannot be too strongly emphasized. In a few hours the pulse may reach 120 or higher. This is a valuable index to the condition in the abdomen since the advancing pulse rate usually indicates advancing septic peritonitis. I believe that the obliteration of liver dullness as a differential diagnostic point is of doubtful value. Many other abdominal conditions cause it. I have recently operated on a gangrenous appendix without spreading peritonitis which showed a definite obliteration of the lower liver dullness.

It is quite true that the symptoms of gastric and duodenal perforations may differ. The later are more often mistaken for perforated appendix. Mr. Moynihan has pointed out the similarity between the symptoms of duodenal ulcer and appendicitis. He collected fifty-one cases in which a correct diagnosis was made in only two, with a primary incision for appendicitis in 19. There is an anatomical reason for this variation in symptoms which is one of the most interesting phases of the disease. Both Mr. Moynihan and Mr. Maynard Smith have emphasized the importance of the anatomy in the case of gall bladder disease and perforated duodenal ulcer. For a time after perforation the extravasated material is limited by certain natural barriers. Mr. Smith experimented by injecting a suspension of zinc oxide through a stomach tube attached to a perforation in the first part of the duodenum. In each instance the liquid flowed in the direction of the right kidney pouch and descended along the outer side of the ascending colon as far as the brim of the pelvis. As the level of the fluid arose it overflowed the pelvic brim. In some cases the fluid would cross the ascending

colon before reaching the pelvic brim. This was due to a fold of peritoneum passing from the outer side of the colon just above the cecum to the abdominal wall. The boundaries of this region, which control the spread of infection from the gall bladder and duodenum, are: in front, the under surface of the right lobe of the liver and the hepatic flexure of the colon; behind, the anterior peritoneal covered surface of the right kidney and the posterior abdominal wall; and outside, the curve of the abdominal wall; and inside, the duodenum itself and the foramen of Winslow. In an upward direction the pouch spreads behind the liver, between that viscus and the diaphragm. Downward the space is limited in part by the reflexion of the peritoneum from the hepatic flexure of the colon to the face of the kidney and the second part of the duodenum. The greatest tendency is for the fluid to find its way into the kidney pouch and along the outer border of the ascending colon and not through the foramen of Winslow and upward beneath the diaphragm.

In considering the differential diagnosis in these cases with acute epigastric symptoms, acute gall bladder disease, acute pancreatitis, acute appendicitis and perforated peptic ulcer cover the field of greatest probabilities. There are others that may be considered but are much less common. One must never forget in cases which show upper abdominal symptoms the possibility of extra-abdominal diseases such as pneumonia and tabes.

The treatment of acute perforation of either gastric or duodenal ulcer is surgical. The earlier the operation the better the prognosis. The actual treatment of the perforation may vary, depending upon the operator and the pathology found: The perforation may be closed by suture, the ulcer may be excised or cauterized or in case the tissues are too friable to suture the opening may be covered with omentum which is sutured in place. Is gastro-enterostomy to be done in addition to the treatment of the perforation? This depends upon the judgment of the surgeon. Deaver advises the gastro-enterostomy. Farr recommends suture of perforation only and then later gastro-enterostomy if necessary. Lewishon says that closure of perforation, pyloric exclusion and gastro-enterostomy should be the opera-

tive treatment. It is my opinion that one should not lay down a definite ruling for operative procedure in all these cases. If there is some pyloric obstruction, gastro-enterostomy is imperative. If the closure of the perforation seems to be all the patient can endure the operative work should end there. If the spreading peritonitis is great and there seems to be grave danger of increasing it by intestinal and stomach manipulation, gastro-enterostomy should not be attempted.

If there is any doubt conservatism should always be exercised. In cases where there is little peritonitis about the opening and the patient's condition good, I would do a gastro-enterostomy, because I believe that that is the proper treatment for ulcers of this degree of severity.

In addition to the closure of the perforation the toilet of the peritoneum and drainage are to be considered. Is it best to irrigate the peritoneal cavity or cleanse it with swabs of gauze? Some have recommended each method. The former seems to be in general a bad practice because of the danger of spreading infection. The latter will needlessly traumatize the peritoneum if great care is not used. I believe a better method than either is the use of a sucker to draw out all the free exudate. That is sufficient. If proper drainage is used following this treatment the chances for success are great. Drainage should be liberal and properly used. In perforation of the duodenum with profuse exudate sufficient to flow over the brim of the pelvis drainage should be placed below the duodenum and gall bladder in the kidney pouch and pelvis. The kidney pouch may be drained through the flank and the pelvis by a suprapubic stab wound.

After the operation strong supportive treatment should early be used. Do not wait until the patient is in extremis before he is given the hypodermoclysis or other therapy he might need. Above all water should be forced in one or all of three ways: by mouth, by rectum or under the skin.

The prognosis in these cases depend in a very great measure upon the time that elapses between the perforation and the operation. The following table compiled by Robson and Moyn-

ihan will give some idea of the prognosis for peptic ulcer in general.

Operation	Total Cases	Recovered	Died	Mortality
Under 12 hrs.....	49	35	14	28.5%
From 12 to 24 hrs..	33	12	21	63.6%
From 24 to 36 hrs..	16	2	14	87.5%
From 36 to 48 hrs..	2	0	2	100.0%
Over 48 hrs.....	35	16	19	51.5%

The average mortality of these five groups is in the neighborhood of 66%, a frightful death rate. I believe that this figure is a little too high for the present day surgery. Deaver reports 56 cases of perforated peptic ulcer with but two deaths, less than 4%. In Charles Farr's series of 24 cases there were but three deaths or 12½%. The mortality for duodenal perforation alone is probably greater than that of gastric ulcer alone. Only 7 of Mr. Moynihan's collection of 51 cases recovered. Wier noted that 13 patients operated upon after 30 hours all died and of 12 operated upon before the 30th hour, 66% recovered. In formulating statistics the most important element to consider is time. The sooner the operation after perforation the lower the mortality rate.

In the case just reported we cannot tell about the ultimate outcome. He may have further ulcer symptoms. If he does, they should be treated as soon as the indications arise. If they persist, I believe that a gastro-enterostomy should be performed. He might perforate again and develop other grave complications that are so often associated with ulcer such as a hemorrhage, obstruction or cancer. A sufficient length of time has not yet elapsed to determine the result in this case.

—R—

Clinic of Dr. C. B. Francisco

DEPARTMENT OF ORTHOPAEDIC SURGERY

GENERAL REMARKS ON TUBERCULOSIS OF JOINTS

Tuberculosis is an infectious, destructive, incurable diseases in the sense that when once the body is invaded with the organism it is impossible for the body to completely rid itself of them.

In considering tuberculosis of the bones and joints there are certain fairly well known facts

regarding it. I know of no other disease where one can actually foretell the progress, with such accuracy, predicting the ultimate result, the deformity and the disability that will follow a tubercular infection of a joint, provided the patient is fortunate enough to be able to obtain control of the process. Curiously enough not many medical men are willing to admit at the outset what the ultimate result is going to be and seek to explain the real happenings by unwise management on the part of the patient or their parents in not properly caring for the individual. The truth of the matter is that there are certain inevitable results that must follow every tubercular involvement of every joint. I do not mean to say that the extent of each process will be the same for we must recognize that the natural personal resistance enters into every case and we can but merely estimate what the normal resisting powers of individuals are.

Tuberculosis of joints is essentially an infection of youth occurring principally in the interval between the ages of 2 and 10. It is not inherited; in fact prenatal infection is now thought not to exist. The child contracts the disease by direct invasion of the bacillus either through the respiratory or alimentary tract. The germ reaching the joint by the blood stream from some other established foci in the body therefore beginning as an endoarteritis. One school, headed by Volkman and Nichols, believes that the process always begins in the epiphysis and extends to the joint. Another group headed by Ely, Sir Watson Cheyne and Krause, maintains that a certain per cent are primarily synovial. One can be quite sure that in the end both the epiphysis and synovial membranes will be involved and it may be primary in either but usually beginning in the bone. In this country we do not recognize diaphyseal involvement, and I have never seen a case of proved tuberculosis of the shaft of the bone without an ingrafted mixed infection. However, in Scotland, Fraser and Stiles have some such undoubted cases, but they explain that it has usually been proven that their cases were of the bovine rather than the human type.

Just why the young individuals should be so much more prone to contract the tubercle bacilli is due to the fact that the growing tissues pre-

sent much better media for the growth of the organism than mature tissues, there being an actual difference in the cell structure. In fact it is now quite generally believed that the development of a tubercular process in an adult is the result of an old early contracted focus lighting up. I heard the late Sir Wm. Osler state with reference to the pensioning of the tubercular British soldiers that "the tubercle bacilli enlisted with the soldier and he did not contract the disease in the army, but the condition caused his old process to light up." Looking at the infection in this light we could explain the many incidents of vague illness in children as being incidents of a battle between the child's tissues and an invading tubercular infection in which nature succeeds in walling off the process in the tissues before it involved a sufficient area to manifest its location.

The process of repair is always the same, viz: walling off the area by the formation of fibrous connective tissue, and the quiescence of the lesion depending on the general condition, remaining sufficiently high to maintain this wall in good repair. No property of the blood has the slightest influence in destroying a tubercular germ. Neither has the body the ability to manufacture any product that can in any way destroy the germ. No medicine or drug can produce any direct action on the germ tending toward its destruction. All that can be done is the indirect influence that will assist nature in building up the general condition so that she may further increase the surrounding wall.

If these facts are appreciated there will naturally follow certain principles in the treatment of tubercular joints in children and the chief ones being: protection while the walling off process is being established and attention to the general condition. If one considers that the growing tissue is unable to establish complete firm barriers it naturally follows that the protection must be continued until the tissues reach a state of maturity such as is established at puberty time. Protection is also required to prevent deformity as the bones of children are sufficiently soft to permit of moulding into greater deformity under the influence of improper weight bearing. Ideally, therefore, the treatment should be protection from weight bearing and motion until the process is

sufficiently walled off to prevent extension of the infected area, then protection from motion until the walls are sufficiently calcified to prevent the escape of the germs. What one always hopes for, in any tubercular joint, is firm bony ankylosis in good functional position. Unfortunately the ankylosis is often fibrous and in such cases it is quite safe to predict that the process will light up under injury or continued strain.

The complications of tubercular joints are abscess formation, general miliary tuberculosis, mixed infection, and paraplegia in the spine cases. Abscess formation is not a collection of pus in that sense of the word, but is a collection of the broken down tissue which has succumbed to the toxine of the germ. Therefore, one should never incise and drain such an abscess. The reason is, that mixed infection is sure to result with the formation of sinuses that may never heal. Aspiration is always to be diligently tried and every precaution used to prevent sinus formation.

General miliary tuberculosis is always fatal. In the case of a diagnosis of tubercular meningitis the only chance the patient has is the chance of your being mistaken. There are possibly a few cases on record of recovery but very few.

The above remarks are applicable to the management of any joint involvement, and the limitation of the process will largely be in proportion to the extent of attention to these principles. We know that when a correct diagnosis of a tubercular joint is made that the cartilage is going to be wholly or partially eroded; that the process is going to extend to the surrounding structure of the joint which will more or less destroy the function of the joint. We know that the epiphyseal involvement will interfere with the growth of the bone and that the extremity of the spinal column will be shortened up in direct proportion to the amount of destruction. The condition is not surgical; attempt to remove the diseased area after the joint is involved always does more harm than good. It is just as important to secure the best possible general care in tubercular joint conditions as it is in the pulmonary cases, and of course, you are familiar with that side of the treatment.

I wish to emphasize some of the points made in the remarks by showing you this case:

He was 12 years old 2 weeks ago, and was perfectly well until he was 4 years old, which was in 1913, when he began complaining of pain in left leg that was diagnosed rheumatism. This condition continued but he seemed to improve and went to school in 1915, but out of school developed some deformity in 1916 and came into the dispensary for the first time in early 1916. He was sent into the hospital and put to bed with extension on his leg for a few weeks which corrected his deformity; a cast was applied which was worn until early 1917 when a hip splint was made for him. He wore this for a time, his hip seemed then quiescent and he took it off. In a short time he was back in bed in hospital again. This performance was repeated in 1918 and again in 1919. He continued his brace then continuously through the latter part of 1919 and 1920, again leaving it off early this year with my consent, provided he would continue one crutch, but he soon forgot about the crutch. However, he had no trouble until 10 days ago when a boy kicked him on the leg and since then he has had considerable pain; inability to weight bear and is restless at night.

You can see that there is some muscle spasm but still a few degrees of motion in the joint. He has one degree of fever and complains of pain in his knee. We can say positively that his process has lighted up, and I believe that you can expect these cases to all light up if protection is removed before they pass their puberty change, especially in the joints that have only fibrous ankylosis as this case has. You can see by the x-ray that marked destruction has occurred of the head and acetabulum, that he has had an abscess that fortunately healed although he states it was incised. He has about one and one-half inches of shortening and while his attitude is proper, that is slight abduction and flexion with external rotation, he has been unfortunate in not securing a bony ankylosis.

This is a typical case and you can remember that in the treatment of these cases this is what you may expect; sometimes worse, but I believe a smoother course can be obtained by continuing the protection up to the age of about

14 years. We shall keep this lad in a plaster of paris cast for the next 2½ years and hope this will be his last flare up.

—R—

Clinic of Dr. Nelse F. Ockerblad

DEPARTMENT OF UROLOGIC SURGERY

URETHRAL CHILL OR URETHRAL FEVER

We have for our consideration today six patients all of whom have tight organic strictures of the urethra. Only one of the group is of particular interest to us now.

This patient is of special interest because the passage of a sound for the purpose of dilating his stricture was followed by chills, fever, and pain in the region of the kidney and in the urethra. This man had a very tight stricture admitting at first only a whalebone filiform and a number 15 F. sound threaded on this fitted the stricture very tightly. Two hours after the instrumentation the patient was seized with a severe chill and his temperature rose to 105 F. He had chills about every half hour and these would last about fifteen minutes. There was profuse perspiration and he vomited several times and was nauseated. He complained of pain in the left kidney region and loin and also a pain in the urethra, so bitterly that an opiate was given. There was no suppression of urine. By morning the patient was feeling quite well and was permitted to leave the hospital in the afternoon. There was no return of the rigor. Subsequent dilatations with sounds produced no like symptoms.

DISCUSSION

This alarming phenomena has been known as a clinical entity for more than a hundred years and has been given the name urethral chill, catheter fever, urethral fever, or urinary fever. The older surgeons believed that persons who lived in the so-called malarious countries were more subject to this urethral fever than those living in the temperate climates. They also thought that persons who had had malaria were more subject to it and that it was really a lighting up of the old process. In the old days when the stone searcher was the instrument of choice in the diagnosis of bladder stones, urinary fever was often observed following the sounding the bladder in children. Urethral

chill almost never follows the dilatation of strictures of the penile portion of the urethra. It rarely follows an external urethrotomy and it does not often follow instrumentation after the first dilatation of a stricture. Crops of herpes have been observed to follow urethral instrumentation.

There are two main theories used to explain this clinical entity, the septic absorption theory and the reflex or sympathetic system theory. Neither of these explains the phenomena in full. We have observed a number of times that in passing a sound the patient would get pale, have a faint feeling, then go into syncope and collapse. This occurs in certain individuals who possess extremely sensitive urethrae. Every urologist has seen patients who upon having the urethra filled for the first time with an anti-septic fluid, have fallen to the floor in a faint. The patient almost never faints a second time. It is also well known that strictures may be dilated with impunity after the first time without fear that there will be a recurrence of the chills and fever. Those who would explain urethral fever on the basis of sepsis maintain that the abraiding of the urethral mucosa by instrumentation causes minute openings on its surface through which bacteria or their toxins gain access to the blood stream. These bacteria or toxins are thrown into the kidney as a shower thus producing this profound disturbance. That the systemic reaction may take place as soon as a few minutes and as long as a few days after the passage of an instrument into the urethra can scarcely be explained on the basis of sepsis alone. For this reason the theory that some of the earlier reactions were caused by irritation of the urethral nerve endings found its place. As soon as bacteria were known to be the cause of infections and more became known about infectious processes in general the older surgeons differentiated between urethral fever and catheter fever maintaining that urethral fever followed immediately upon such instrumentation as the dilatation of a stricture in a middle aged male and that catheter fever followed close upon the beginning of catheter life by the old man with enlargement of the prostate. We now believe however that both are the same clinical entity. I have observed that in passing a sound

on a patient who had no stricture, no pus in his urine and who apparently did not have damaged kidneys, that his pupils dilated and he collapsed and remained in profound shock for twenty minutes and required the administration of strong stimulants. J. W. Thompson Walker of London tells of a patient who died on the table following the passing of a sound. It has been shown that the passing of a sound will often cause a marked fall in blood pressure. The crudest and roughest instrumentation, even to the formation of a false passage will often not be followed by any untoward symptoms while the most skillful and gentle introduction of instruments may produce a most malignant form of catheter fever. It sometimes happens that after an internal urethrotomy when the retention catheter is removed on the third or fourth day that when the first urine flows over the raw cut surface of the urethra that it induces a severe chill followed by fever. It is also true that the onset of the symptoms after the dilatation of a stricture is commonly directly following the first attempt to urinate.

Undoubtedly the bacterial sepsis theory and the nervous or reflex theory have much basis in fact yet both leave much to be explained. My own thought on the matter is that it is the constitutional makeup of the individual that determines what he will do when his urethra is subjected to instrumentation. Picture a man with a pale soft skin, flabby muscles, a blood pressure of 84 and 54, a low red count and a low hemoglobin and you may classify him as a patient who is lacking in some or all of his internal secretions. He may be classed as a dyspituitary, a hypothyroid or a status lymphaticus, but we know that he is the type of patient who does not resist infection well and surgeons do not care to operate on him. He is carried off in great numbers in epidemics. Another factor in urinary fever is undoubtedly the element of the introduction of a foreign protein into the blood stream by instrumentation of the urethra. As is well known there are many variations and degrees of anaphylaxis. I do not mean to say that all reactions that follow the passage of instruments into the urethra can be explained on the basis of a patient who is a subendocrine type or that any great number of them are caused by the introduction of a

foreign protein but it is certain that these are factors that must be considered in explaining this febrile disturbance. This theory added to the septic and nervous theories goes a long way in covering the field.

—R— Relative Effectiveness of Various Forms of Treatment in Neuro- syphilis

About fifty patients with neurosyphilis were treated by spinal drainage by John H. Stokes and Earl D. Osborne, Rochester, Minn. (Journal A. M. A., March 12, 1921), with a view of ascertaining, if possible, the advantages of this type of medication. Their method consisted of the weekly withdrawal of from 30 to 70 c.c. of spinal fluid from fifteen minutes to one hour following an intravenous injection of arsphenamin. Mercury, in the form of inunctions or the intramuscular injection of a soluble salt, was also employed in every case. The average number of spinal drainages in each case was five, the highest number being nine and the lowest three. On the completion of drainage, the patients were placed on interim inunction treatment and re-examined after intervals of from two to nine months. The somewhat disappointing results led to their being placed on Swift-Ellis-Ogilvie intraspinal treatment. A comparison of the findings on patients receiving spinal drainage in conjunction with arsphenamin intravenously and routine mercurialization, and the findings on patients receiving an equal amount of routine treatment without spinal drainage, demonstrates no superiority in favor of the drainage method. The most immediate change produced by either of these methods of treatment is in the cell count. A transient but marked rise followed by a fall toward normal limits occurred in patients receiving spinal drainage, and we have reason to believe that a similar Herxheimer-like curve of pleocytosis accompanied by transient exacerbation of symptoms occurs in many patients under treatment for neurosyphilis by routine methods. Temporary rise in the cell count early in the course of treatment should not therefore necessarily be regarded as of unfavorable prognostic significance. In ten patients in whom spinal drainage had produced indifferent results, the administration of arsphenamin serum intraspinally some months later produced what appeared to be more satisfactory and more permanent results,

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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What Shall We Do With the "Won't Pay" and the "Can't Pay" Patients?

One may assume without fear of criticism that every practitioner would be glad to have his books show 100 per cent collected. There are perhaps still a few of those who love the work, and would rather work for nothing than cause their patients a little annoyance by asking them for money, but not many of them. Even these would be very glad to get the money if they did not have to ask for it.

As a working basis it may be assumed that there is no community which can justly require one or two men to care for their sick poor without recompense—in other words, each member of the community is as much under obligation to care for these people as is the doctor. But because the doctor has always assumed the responsibility he will always be expected to, unless he can himself provide another way. Every practitioner has a few patients who won't pay and he also has a few patients who can't pay. The former he can easily dispense with—he may very safely refuse to serve them except for cash. But the latter class can not be so easily disposed of. If the doctor's sympathy does not urge him to take care of these people, the fear of criticism by their relatives, friends and neighbors, will compel him. But while these relatives and friends are readily

incensed at the doctor's neglect of these cases, they offer him no recompense, except an occasional call to some of their own family for which they pay the regular fee. It is very true that the community as a whole should carry this burden and in every county the people are taxed to care for the sick poor. But the trouble is that the county seldom provides for any but actual paupers, while most of the doctor's "can't pay" patients are able to work out a meagre living, and are usually insulted at any suggestion that they should call a county physician.

The scheme for compulsory sickness insurance which was strongly advocated before the War, never appealed very strongly to the medical profession. It provided a very cheap medical service to a class of people who were well able to pay regular fees, but did not provide for the care of the unemployed or a large class of self employed that never succeed in making more than a living. The scheme, however, is one that the medical profession can adapt to its "can't pay" clientele to good advantage. If, for instance, each member of a county society turns in a list of his patients that have not paid, with the amount of his service to each and these are tabulated, it will be easy to determine those who belong to the "won't pay" and those who belong to the "can't pay" classes. Assume now, for illustration, that there are 200 of the latter class in the county and that the total amount of service rendered by all the members of the society to these 200 "can't pay" patients is \$2000, or an average of \$10 each. Then, if each of the 200 paid one dollar each month into the treasury of the county society each member could be paid out of that fund for the service he renders. Of course the actual figures may be higher or lower than this. No estimate can possibly be made until the names and amounts are reported from all the members of the society.

Of course there are numerous details that must be carefully worked out, but with proper co-operation among the members of the society the plan can be successfully operated. It will be quite important to limit the beneficiaries to those whose income is limited to a certain amount and it may be necessary that the sympathetic friends and neighbors of some of the most indigent be interested to the extent of

making monthly contributions. Such a plan might appeal to the county commissioners in some counties to the extent that the society might care for the county charges for a per capita monthly payment. The saving to the county by this plan would justify the commissioners in including in the list of beneficiaries many of those unable to pay for medical service although not regarded as county charges.

It is certain that there are societies in the state sufficiently well organized to try out the plan and it is to be hoped that one or more of them will do so.

—————R—————

Kansas Medical Directory

The Directory has finally been printed and will be ready for delivery by the time the society meets in Wichita.

Physicians are listed first by counties and towns. In this list the date and place of birth, the school of graduation, the date of license and the specialty are given. Then there is an alphabetical list in which the names of the physicians are given in alphabetical order with their locations. Then there is an index of towns, so that nothing is lacking in convenience.

One who undertakes to publish a directory of this kind soon learns that he has some job and he also learns that it is utterly impossible to publish a directory that will be more than approximately up to date. It may be well to explain now that only those are designated as members of the society who were in good standing in 1920. There were a good many who thought they were members who were not in good standing according to the secretary's books. There were several applicants for membership who should have been designated as members in the Directory but the county societies were slow in acting upon the applications.

One of the unexplainable circumstances is the number of physicians who have forgotten when they were born or where they were born. Most of them remember the year of graduation and quite a large number were able to give the correct name of the college from which they graduated, but not more than ten per cent of the graduates of the University of Kansas School of Medicine gave its correct title. These are

mere incidents of no importance—except to the editor who had to make the corrections, look up other sources of information, or possibly insert an asterisk where the correct data should have appeared.

No doubt some omissions have occurred, but every possible effort has been made to secure complete lists. In the first place lists were made up from other directories and these were sent to the secretaries of county societies or, in unorganized counties, to the councillors or some member of the society, for correction and revision. When these lists were returned blanks were sent to each name on the list with a letter explaining the purpose. After a reasonable time second letters and slips were sent those who failed to reply. In some instances a third and fourth request was mailed. In some cases other physicians in the same town, or near by towns, were requested to supply the required information.

The returns were then recorded and prepared for the printer. The first proofs were sent to the secretaries of county societies, for correction, or to the councillor or some member of the society in unorganized counties. When these were returned hundreds of other slips were sent out to those who had been omitted. When these were finally returned and properly recorded and the proofs again checked, it was found that several hundred had in the meantime changed locations. When, finally, a report had been received from every physician on the corrected lists, or he had been in some way accounted for, what was supposed to be the final corrections were made, but until Dec. 31, when the lists were finally closed, corrections, changes or additions, were continually made.

There is the satisfaction, however, that most of the work will not have to be repeated. The information secured has been transferred to cards and these with the help of the secretaries and councillors will be kept up to date so that when it is considered time to publish another directory it can be easily done.

If there are any who have been omitted or who would correct the data given in the Directory it might be well for them to send the necessary information now so that it may be recorded in the card index.

**Meeting of Kansas Medical Society,
April 26th, 27th and 28th, 1921,
Commercial Club, Wichita,
Kansas**

Committee on Arrangements: Dr. J. A. H. Webb, Dr. W. P. Callahan and Dr. J. W. Cheney.

Committee on Entertainment: Dr. R. W. Hissem, Dr. W. G. Gillet and Dr. T. S. Finney.

Entertainment: Banquet Wednesday, April 27th at 7:00 P.M. at the Winter Garden, after which there will be a dance, given by the Sedgwick County Medical Society. The doctors, their wives and sweethearts are invited.

Meeting of the Council: The Council will meet at the Commercial Club, Tuesday, April 26th at 8:30 A.M.

Meetings of the House of Delegates: House of Delegates will meet at the Commercial Club, Tuesday, April 26th at 5:00 P.M., and the following order of business will be observed:

Reading of minutes of last meeting, Reports of Secretary, Treasurer and Councilors, Report of Standing Committees, report of special committees, report of committee on arrangements, unfinished business, new business.

Thursday, April 28th, 8:30 A.M., Meeting of the House of Delegates:

Roll call, election of officers: President, three Vice-presidents, and Treasurer. Two delegates to A.M.A., Councilor for 1st, 2nd, 7th, 8th and 9th Districts, one member of Medical Defense Board.

Wichita Hotels: Hotel Lassen, Headquarters. Hotel Cadillac, Hotel Coronado, Hotel Eaton and Hotel Hamilton.

There will be a meeting of the secretaries of all county societies, Wednesday, April 27th at 5:00 P.M. at the Commercial Club.

Public meeting. Tuesday evening, April 26th, 8:00 P.M., Dr. Joseph Colt Bloodgood, Baltimore, "The Cancer Problem" (lantern slide demonstration).

The Wichita Golf Club has extended an invitation to the members of the Society to hold a Golf Tournament on Monday, April 25th.

For particulars, write to Dr. E. S. Edgerton, Wichita.

PROGRAM

TUESDAY, 8:30 A. M.

C. Klippel, Hutchinson—"President's Address."
W. H. Neel, Wellington—"Nephritis."

C. F. Menninger, Topeka—"The Modern Conception of Diabetes Mellitus."

R. H. Hertzler, Newton—"Thrombosis of the Mesenteric Artery."

C. S. Kenney, Norton—"Can Standards for the Diagnosis and Treatment of Incipient Pulmonary Tuberculosis be Established?"

E. S. Judd, Rochester, Minnesota—"Some of the Problems Involved in Surgery of the Gall Bladder and Biliary Ducts."

L. J. Wheeler, Great Bend—"Focal Infection."
O. A. Hennerich, Hays—"Otitis."

F. W. Huddleston, Liberal—"The Comparative Sequelae of Focal and Infectious Diseases."

W. D. Storrs, Topeka—"Osteitis Fibrosa Cystica."

R. C. Young, Arkansas City—"Portable Bone Splints."

A. G. Beall, Hutchinson—"Some Fundamental Principles of Bone Surgery."

Joseph Colt Bloodgood, Baltimore, Md.—"Bone Tumors." (Lantern slide demonstration.)

R. W. James, Winfield—"Post-operative Treatment."

M. T. Sudler, Lawrence—"The Use of Cathartics in Surgical Conditions."

H. M. Tihen, Wichita—"Basic Metabolism."

C. R. Burkhead, Wichita—"Blastomycosis, with Case Reports."

Geo. E. Paine, Hutchinson—"Diagnostic Value of Cardiac Arrhythmia."

PUBLIC MEETING

Joseph Colt Bloodgood, Baltimore, Md.—"The Cancer Problem." (Lantern slide demonstration.) Crawford Theatre, South Topeka Ave., 8:00 P. M.

WEDNESDAY, 8:30 A. M.

L. H. Sarchet, Wellington—"Syphilis in Diseases of Eye, Ear, Nose and Throat."

- F. A. Trump, Ottawa—"A Very Early Case of Gonorrheal Arthritis."
- M. O. Nyberg, Wichita—"A New Method of Treatment for Gonorrhea in Women."
- R. C. Lowman, Kansas City—"Carcinoma of the Uterus."
- J. D. Clark, Wichita—"Anesthesia and Analgesia in Obstetrics."
- J. W. Faust, Kansas City—"Inversion of Uterus."
- C. D. McKeown, Hutchinson—"Present Day Obstetrics."
- E. A. Reeves, Kansas City—"Placenta Previa."
- P. S. Mitchell, Iola—"Pituitary Extract in Obstetrics."
- W. J. Eilerts, Eldorado—"Pelvic Cellulitis."
- R. R. Cave, Manhattan—"The Attitude of the Medical Profession towards Pelvic Cases in Women."
- J. Rotter, Parsons—"Sterility in Women."
- Warren F. Bernstorf, Pratt—"Treatment of Septic Incomplete Abortion."
- Thos. G. Orr, Rosedale—"A Technic for Leg Amputation." (Lantern slide demonstration.)
- Frank McKinney, Galena—"Head Injuries."
- Ernest Sachs, St. Louis—"On the Diagnostic and Operative Results of Some Neurological Conditions."
- Karl A. Menninger, Topeka—"What is Dementia Praecox?"
- W. L. Hopper, Ft. Scott—"Eradication of Malaria by Cultivation of the Bat."

THURSDAY, 8:30 A. M.

- H. L. Chambers, Lawrence—"This Year's Epidemic of Streptococcus Infection."
- Hugh Wilkinson, Kansas City—"The Modern Prostatectomy."
- A. R. Hatcher, Wellington—"Prostatic Surgery and Some of its Problems."
- J. T. Scott, St. John—"Interrelations of the Glands of Internal Secretion."
- E. G. Padfield, Salina—"Infant Feeding."
- Hugh L. Dwyer, Kansas City—"Classification and Treatment of Diarrhea in Infancy."
- Paul E. Belknap, Topeka—"Congenital Pyloric Stenosis."
- R. L. vonTrebra, Chetopa—"Whooping-cough."

- Elvenor Ernest, Topeka—"Fitter Families."
- H. R. Ross, Sterling—"Ethics, Past and Present."
- C. C. Nesselrode, Kansas City—"Group Practice."
- W. E. McVey, Topeka—"Co-operative Collections and Protection against Dead Beats."
- E. E. Liggett, Oswego—"How to Make the County Medical Society Attractive and Helpful."
- Geo. P. McCoy, Neodesha—"Importance of Good Office Equipment and Hospital Facilities for those Practicing Specialities."
- J. T. Axtell, Newton—"The Doctor and the Hospital."
- C. C. Goddard, Leavenworth—"The Doctor and the So-called Medical Sects."
- Herbert Randles, White City—"The Doctor and the Druggist."
- W. E. Mowery, Salina—"Do We Profit by Our Mistakes?"
- F. H. Smith, Goodland—"Fads, their Diagnosis and Treatment."
- O. R. Brittain, Salina—"Some Characters and Events in Medical History." (Lantern slide demonstration.)

CHIPS

There is one physician to every 700 inhabitants in the U. S. This statistical report evidently does not include the mongrels and pseudos. The sickness disability rate is said to be 18 per 1000.

Community medicine is commending itself to the profession where it has been tried out intelligently. It is the panacea for compulsory health insurance. It will breed altruism in the profession and an evolutionary up-lift in the life of the community served.

Where the wording is changed but the meaning is the same and improved upon? The old timer said "A thunder storm purifies the air." The new timer says "Electricity sterilizes the air."

The twenty-second annual meeting of the American Proctologic Society will be held at the Boston Medical Library, Boston, June 3, 4 and

6. An invitation is extended to the profession. An attractive program has been prepared.

Dr. Edgerton is arranging for a Golf Tournament to be held in Wichita all day Monday, April 25, 1921, the day before the regular State Medical Meeting here. This will be conducted in the same manner as the National Meet of the A. M. A. and as some of the other State Medical Societies are conducting. Matches will be for thirty-six holes.

Each player will be allowed his proper handicap and a prize given for the low net score. Also prizes for low medal scores and to the team of four players from the one city turning in the best four cards.

Freilich in Preventive Medicine says, "Many physicians neglect to examine the chest or the sputum of asthmatics thinking the asthma a sufficient explanation of the symptoms and consumption in asthmatics scarcely among the possibilities. In consequence many old asthmatics go around coughing, spitting and spreading consumption for years without any suspicion as to the harm they are doing.

Repeated sputum analysis should be made every year in asthmatics to detect tuberculosis before it has been present for a long time. The most common symptoms which suggest consumption in an asthmatic are rapid pulse, loss of weight, pain in the chest, night sweats and hemoptysis."

More and more the different States are beginning to realize the perils that result from neglecting the complications that mental diseases introduce into the problems of delinquency, crime, dependency, and other social ills, and are taking steps looking to the cure and to the prevention of these diseases. Particularly, they are stressing preventive work among children, both because these are the most easily accessible and most easily studied and even more because, as is now thoroughly understood, they are likely to suffer from many small and easily remediable health defects which, if neglected, may very probably heavily handicap them through life.

The Maine Supreme Court has ruled that an abundance of flies in a hotel is a valid excuse for breaking a contract. F. A. Sweet contracted for board for himself and family for two weeks

at a hotel run by F. A. Williams. The flies were so abundant that he moved from the hotel. Williams sued for the board bill and Sweet offered proof of the over-abundance of flies as a defense. Judge Speer in giving the verdict for Sweet said: "It is a matter of common knowledge that the house fly has come to be regarded by enlightened understanding not only as one of the most annoying and repulsive of insects but as one of the most dangerous in its capacity to gather, carry and disseminate germs of disease."

"War is a biological necessity of the first importance, a regulative element in life of mankind which cannot be dispensed with, since without it an unhealthy development will follow, which excludes every advancement of the race, and therefore real civilization. The struggle for existence is, in the life of Nature, the basis of all healthy development. All existing things show themselves to be the result of contesting forces.

"To supplant or to be supplanted is the essence of life," says Goethe, "and the strong life gains the upper hand. The law of the stronger holds good everywhere. Those forms survive which are able to procure themselves the most favorable conditions of life, and to assert themselves in the universal economy of Nature. The weaker succumb. This struggle is regulated and restrained by the unconscious sway of biological laws and by inter-play of opposite forces."—Bernhardi.

Tweddell, in the Medical Record, reports answers from thirty-eight large concerns making or using sulphur dioxide in large quantities that the owners, manager and men seemed to think breathing air which contained a small amount of SO₂ served to protect against influenza, consumption and other infections of the respiratory tract.

Theoretically the blood stream and other tissues of the body can be sterilized but not without destroying their vitality. The how to do it with safety to life is in the dawning.

The value of milk in the diet has been shown very strikingly in the milk-feeding demonstrations carried on in the schools. In Kansas City, for instance, a survey in a certain school district in May, 1919, disclosed that 37 per cent

of the children were undernourished. They were given a school lunch of milk and graham crackers, and by September, the percentage of under-nutrition had fallen to 25 per cent. The following March only 3.7 per cent were below weight, and it was expected that all would be up to normal in a short time. Similar results have been obtained in other cities.

The value of milk for older children and grown-ups is brought out in a tribute to milk from the president of a woman's college in the South: "For 67 years we have never had a death of a boarding school student. We have our own herd of dairy cows. What milk we can not use we sell. We went through the flu epidemic safely by keeping the dormitories heated evenly, and then feeding milk."

A summary of the replies from 115 state hospitals for the insane, representing 39 states and many thousands of patients, showed that syphilis was the cause of insanity in 15.5 per cent of the men admitted to insane asylums and in 6.1 per cent of the women admitted. The number of inmates whose insanity was due to syphilis was smaller than the number admitted, the report explains, for the reason that the lives of the syphilitic insane are comparatively short. The figures showed that the male inmates who were insane because of syphilis were 6.2 per cent and the females 2.2 per cent, but these figures, according to the report, do not represent the incidence of syphilis among the insane or the number of those giving a positive Wassermann. Some insane persons have contracted syphilis after becoming insane, others before.

That syphilis is the chief factor in the mortality of the insane is the conclusion reached by the Metropolitan Life Insurance Company after a close observation and study of 2,540 cases of industrial policy-holders who were known to have suffered from mental disease and whose deaths occurred in the space of thirteen months prior to April 30, 1920.

A report of the study says that syphilis was either the primary or contributing cause in over 30 per cent of the deaths of this group of persons. Syphilis itself was definitely certified either as the primary or secondary cause of death in 174 cases. General paralysis of the insane, which is now known to be of syphilitic

origin, was reported either as the primary or secondary cause of death in 613 cases. Locomotor ataxia and other syphilitic diseases were returned in five cases. It was found also that the death rate for mental diseases was more than 50 per cent higher among colored persons than among white persons, and that males show a rate about one-third higher than that of females.

All industrial plants are more or less dusty. But how dusty is the air in any particular plant? The degree of its dustiness is important, for certain forms of air dustiness create in the workers a predisposition to tuberculosis and other diseases, Dr. O. M. Spencer, of the U. S. Public Health Service, shows in a recent report that neither exhaust pipes nor wet processes in grinding and polishing prove that the dustiness in an industrial plant is satisfactorily controlled. Many exhaust pipes do not exhaust, and wet processes may create far more dust than dry ones. Only actual dust counts made at the working level show the actual dustiness, and these should be made periodically.

Has the removal or cure of remediable defects in school children had the great beneficial effects that were expected? Nobody knows, for both time and follow-up methods have been lacking. Now, however, the U. S. Public Health Service is making arrangements to have such children in all parts of the country followed up for some years to learn how greatly they actually have profited by the help given them. It will welcome additional information along these lines from all sources.

The June issue of the *Medical Review of Reviews* will be a special radium number dedicated to Mme. Curie. The issue will consist exclusively of articles on radium and its uses, written by the most prominent radiologists in the United States and Canada.

Copies will be sent complimentary to every physician interested in the uses of radium and any readers of this item who desire that issue may have it by asking for it from the Medical Review of Reviews, 51 East 59th Street, New York.

Something of the effect of syphilis in the parent on the family has been revealed in an intensive study of 555 families of syphilitic

patients by Dr. Harry C. Solomon and Maida H. Solomon of the Massachusetts Psychiatric Institute. The patients themselves were in the late stage of the disease, having general paresis, cerebro-spinal syphilis, or syphilis without involvement of the nervous system. The families of the 555 patients were examined as a routine procedure and covered a period of five years.

Among the important findings of the examination were that two-thirds of the syphilitic families show defects as to children; between one-third and one-fourth have never given birth to a living child; more than one-third of the families of syphilitics have accidents to pregnancies, such as abortions, miscarriages, or stillbirths, while the birth rate in syphilitic families is 2.05 per family, or about half the rate of the average New England family which has been estimated to be 3.8.

Frank Schwarte reports eight cases of severe suppurative corneal ulcer, three cases of infected perforating wounds of the eye ball, and two of conjunctival diphtheria, treated with milk injections. In a few hours after the injections there was marked improvement in subjective symptoms. There was an increase in leucocyte count. There was no evidence of local irritation at site of injection.

While milk injections appear to give good results in suppurative corneal ulcers and some other severe infections of the eye, this treatment is without value in trachoma, according to Nicholaus Blatt, who reports on his results with 150 cases. Fifty cases were treated with milk injections and boric acid solutions in the eye. Fifty cases were treated with milk injections and one per cent silver solution in the eye. Fifty cases were treated with no milk injections but with the usual mechanical and medical methods. He concludes that the effect of the milk injections on the disease process is nil. He claims to have found no case of improvement which can be ascribed directly to the injections.

The oculocardiac reflex consists in slowing the radial pulse, lowering blood-pressure and modification of the respiratory rhythm from compression of eye balls. After a comparative study of groups of normal and pathologic persons, Naccariti (*Arch. Neur. & Psys. Jan.*)

concludes that the reflex is as subject to individual difference and variations as is the pulse; that this reflex cannot constitute a positive sign for differential diagnosis, though it may serve as an indicator in some conditions.

F. Foster Moore, (*Lancet*, Oct. 2) discussing the theories advanced to account for the proptosis of Graves' disease, reports some post-mortem findings in a case that had died from this disease and in which the exophthalmos persisted after death. In this case the orbit was found to be completely filled with fat. In another case in which extreme exophthalmos existed a large quantity of fat was removed through an incision through the inferior conjunctival fornix. He believes that excessive formation of fat in the orbit is the only cause of exophthalmos in these cases.

Shambaugh (*Laryngoscope*, Nov. 1920) says: Mere anatomical variations in the nose cannot play an etiological role in middle ear disease except when there are unmistakable symptoms of nasal disease present; secondly, the indiscriminate use of middle ear inflation, without regard to the patency of the tube or the pathology of the aural affection under treatment, has become a fallacious habit that should be corrected.

Dr. Joseph Colt Bloodgood of Baltimore, Maryland, will read a paper on "Bone Tumors" with lantern slide demonstration, at a special meeting of the Shawnee County Medical Society, on Monday evening, April 25th. The place of meeting will be at Pelletier's Tearoom at 8 P. M.

In discussing the subject of reliable criteria of operability in exophthalmic goitre, David Cheever, (*Arch. Surg.* Jan. 21) says:

"It seems reasonable to offer the subjoined tentative conclusions with regard to criteria of the ability of the patient with exophthalmic goitre to withstand the strain of operative therapeutics: (1) During an acute exacerbation of the disease, or in periods of great mental depression, operation is contra-indicated. (2) Muscular weakness so great that the patient cannot walk and marked loss of weight with continued loss under absolute rest are serious contra-indications. (3) Organic visceral disease so serious

as to jeopardize patient's having any operation of similar technical type is a contra-indication.

(4) Operation should not be undertaken in the presence of an enlarged thymus, until its probable activity has been reduced by irradiation.

(5) The Jewish race offers a distinctly higher operative mortality. (6) A metabolism of 30 introduces a serious risk, which undoubtedly increases with high rates, but not necessarily in proportion, and there is no rate of metabolism which alone contra-indicates at least minor surgical procedures. (7) The 'vagotonic' type is possibly more vulnerable to the operative ordeal than is the 'sympathicotonic,' but evidence on this point is as yet inconclusive. (8) The minor procedures, whether consisting of injections into the gland, cauterizing or ligating operations, are often most valuable indexes of a patient's resistance to trauma.

In hyperthyroidism, operations will always be attended by a peculiar factor of danger, not present in other operations which are technically similar."

R SOCIETIES

Stafford County Medical Society

The Society met in St. John, Wednesday, Mar. 9th, at 8:00 P.M. Dr. C. S. Adams presided and the following members were present: W. L. Butler, F. W. Tretbar, J. J. Tretbar, Stafford; W. C. Bundrant, Hudson; M. M. Hart, H. H. Miner, Macksville; C. S. Adams, L. E. Mock, J. T. Scott, St. John.

The guests were Martin Dupray, Hutchinson, Dr. C. W. Zugg, and Dr. Connett, Great Bend.

Mr. Martin Dupray, proprietor of the Dupray Laboratory, Hutchinson, read a splendid paper on Basic Metabolism, in which he described the different metabolism machines and their uses, mentioning also the diseased conditions in which the readings are of diagnostic value.

Dr. C. W. Zugg of Great Bend read a paper entitled Some Practical Points in the Treatment of Syphilis. He uses the arsenic and the mercury preparations intravenously, also the iodides internally. There are occasionally cases that can not be treated intravenously and in such he recommends neo-salvarsan by the rectum in large doses, up to four grams.

The Society will have as essayist for the April meeting Dr. Karl Menninger of Topeka.

J. T. SCOTT, Sec.

Harvey County Medical Society

The Harvey County Medical Society met in regular session at the office of Dr. Max Miller, Newton, Kansas. Those present were: Dr. H. M. Glover, President, Drs. Regier and Norris, of Whitewater; Drs. Chesky, McMillion, Hashinger and A. E. Hertzler, of Halstead; Wedel, of Hesston; Stahlman, of Potwin; R. H. Hertzler, Grove, Miller, Martin, Bennett, Smith, Smolt, Kalbfleisch, Haake, White and Abbey, of Newton.

Papers were read by Dr. Miller on "Asthma", Dr. Hashinger on "Metastasis in Breast Cancers", Dr. McMillion on "Esophageal Stenosis in Children", Dr. Glover on "Arterial Hypertension." All the papers were interesting and gave evidence of careful preparation.

FRANK L. ABBEY, Secretary.

Butler County Society

The next meeting of the Butler County Medical Society will be held at the Fifth Avenue Hotel in Augusta on Friday, April first, at 6:30 P.M.

Every physician in the County is invited to be present.

PROGRAM

Dinner.....6:30 sharp, Fifth Avenue Hotel
Treatment of Occipito-posterior position....

.....Dr. J. C. Bunton
Discussion of same.....Dr. R. J. Cabeen

The Importance of Endocrinology in Therapeutics.....Dr. O. N. Clark

Discussion of same.....R. B. Earp
Simple Procedures in the Treatment of Gen-

ito-Urinary Diseases.....Dr. A. D. Gray
F. A. GARVIN, Sec'y.

Dickinson Society

Dickinson County Medical Ass'n met in the Chamber of Commerce Bldg., Feb. 17th, 1921.

The following officers were elected for the ensuing year: Pres., Dr. Theo. Kroesch, Enterprise; Sec., Dr. E. J. Reichley, Herington; Treas., Dr. H. R. Turner, Hope; Delegate, Dr.

H. R. Turner, Hope; Alternate, Dr. W. A. Klingberg, Elmo.

It was decided that more papers be prepared and read at the regular meetings of the association. The President stated that he with the Secretary would prepare a program for the entire year to be printed in booklet form and sent to each member.

Meeting adjourned to meet in three months.

E. J. REICHLEY, Sec.

Sumner County Medical Society

The Sumner County Medical Society met at the Park Hotel, Wellington, Kansas, Thursday evening, March 31st.

PROGRAM—INFECTIOUS DISEASES

I. Whooping Cough, Dr. D. E. Kisecker; Discussion led by Dr. F. F. Netherton.

II. Measles and Scarlet Fever:

a. Differentiated diagnosis, Dr. E. A. Evans; Discussion led by Dr. H. A. Vincent.

b. Role of the streptococcus, Dr. R. W. VanDeVenter; Discussion led by Dr. J. C. Wall.

III. Diphtheria, Dr. W. H. Neel; Discussion led by Dr. T. H. Jamieson.

IV. Infantile Paralysis, The Drs. Shelly; Discussion led by Dr. W. E. Bartlett.

V. Syphilis, Dr. W. M. Martin; Discussion led by Dr. J. C. Caldwell.

T. H. JAMIESON, Secretary.

Western Electrotherapeutic Association

The third annual meeting of this association will be held at the Little Theatre, Kansas City, Missouri, April 21-22, under the presidency of Dr. B. B. Grover of Colorado Springs. The annual dinner will be given at the City Club on Thursday evening, April 21st, at which a number of distinguished speakers will entertain the members including: Dr. A. J. Pacini, chief x-ray U. S. P. H. S., Dr. T. W. Raison, Commander M. C. U. S. N., representing the navy department, and Dr. Byron Sprague Price, presi-

dent American Electrotherapeutic Association and others. The following is the

PRELIMINARY PROGRAM

Sarcoma of the Testicle with Metastases to the Abdominal Lymphatics, treated with Radium and X-ray—Dr. H. H. Bowing (Mayo Clinic), Rochester, Minnesota.

The Use of Radium in Goiter—Dr. D. T. Quigley, Omaha, Nebraska.

Reconstruction Work in the Hospitals of the Service—Surgeon-General H. S. Cumming, U. S. P. H.

Metabolism—Dr. Byron Sprague Price, President American Electrotherapeutic Association, New York City.

New Principles of Roentgenotherapy—Dr. A. J. Pacini, Chief X-ray U. S. P. H. S.

Intestinal Stasis Induction of Normal Muscular Movement—Dr. Frederick H. Morse, Boston.

The Significance of Radiotherapy—Dr. William Benham Snow, New York City.

X-Ray Therapy of Tuberculosis of the Kidney—Dr. Williams L. Ross, Omaha.

Goiter, Its Treatment, with presentation of case—Dr. L. A. Marty, Kansas City.

Recent Developments in X-ray and Radium Therapy—Dr. A. F. Tyler, Omaha.

Tesla Coils—Dr. Omar T. Cruikshank, Pittsburgh, Pennsylvania.

Cancer, Its Treatment—Dr. T. Howard Plank, Chicago, Illinois.

Progress of Hydrotherapy—Dr. Curran Pope, Louisville, Kentucky.

Myxedema following X-ray Treatment of Thyroid Gland—Dr. S. Grover Burnett, Kansas City.

Subject to be announced—Dr. Edward H. Skinner, Kansas City.

Subject to be announced—Dr. Charles J. Cahill, Kansas City.

A three days session of the Western School of Electrotherapy will precede the above meeting, beginning April 18th.

Clinics and demonstrations will be held every afternoon. An excellent commercial exhibit, comprising all the leading manufacturers of ap-

paratus is being arranged, and will prove of great interest to visitors.

For information or program address the secretary, Dr. Charles Wood Fassett, 115 East Thirty-first Street, Kansas City, Mo.

Allen County Medical Society

Following the holidays the Allen County Medical Society promulgated a plan of fining the members one dollar each for absenting themselves from meetings without excuse.

This seemed to put new life in the Society and has brought about 100 per cent attendance ever since. The Secretary devised a post graduate course in which one or two members of the profession well versed in their specialty were invited in each month to deliver a paper.

We likewise arranged with the Neosho County Medical Society for an inter-county meeting. This was held at Humboldt, Mar. 22nd. Doctors Logan Clendenning and C. Wilber Mercer of Kansas City, Mo., were asked to deliver papers to which they kindly consented. Each splendidly demonstrated his lecture with lantern slides and the meeting was voted the most successful held in this part of the state.

Following the educational part, a banquet and smoker were indulged in. Councillor P. S. Mitchell, who was present, was asked to revive the old South East Kans. Dist. Society and invite it to meet in Chanute sometime in May.

Allen County is now practically 100 per cent organized and very enthusiastic in their work.

P. S. MITCHELL,

Sec. Allen Co. Soc., Councillor 3rd Dist.

Labette County Medical Society

The society met in the Oswego First National Bank on Wednesday, March 30th, with President E. E. Liggett presiding. Members present were G. W. Hay, N. C. Morrow, T. D. Blasdel, M. C. Ruble, O. E. Stevenson, L. H. Parker, A. R. Nash, Paul Christman, H. C. Markham, R. L. von Trebra, Emma L. Hill, E. L. von Trebra, J. H. Henson, L. B. Kackley, C. N. Petty, J. Rotter. Visitors: P. F. Bohan of Kansas City, Mo.; R. M. James, J. D. Tyree of Joplin, and M. D. Ailes, Parsons.

PROGRAM

Dr. Bohan gave the second of a series of

lectures which we have planned for the year. His subject was "Heart Diseases". He illustrated his subject by charts and lantern slides of radiographic tracings.

Dr. Bohan, besides knowing his subject, has a rare faculty of presenting it in an interesting and instructive manner. We are always glad to have men of such ability to be with us.

Our next lecture will be May 25th. It will be on "Syphillogy" and presented by Dr. Ockerblad of the Kansas University. These lectures are arousing much interest not only in our own society but also those of the surrounding counties. If the weather permits and roads are good we expect a large attendance at our next meeting.

P. S. TOWNSEND, Secretary.

DEATHS

Thomas Almon Jones, Hutchinson, aged 42, a graduate of Rush Medical College, died in Pasadena, Calif., February 11.

Dr. Jones was a member of the Kansas Medical Society.

Joseph L. Eyeman, Eldorado, aged 61, died February 23 from interstitial nephritis. He graduated from Northwestern Medical College, St. Joseph, Mo., in 1889.

Charles W. Winslow, Oakley, aged 66, died February 18, from pernicious anemia. He graduated from Ensworth Medical College, St. Joseph, Mo., in 1889. He was a member of the Kansas Medical Society.

Lawrence Andrew Lynch, Kansas City, aged 28, died January 3. He graduated from John A. Creighton Medical College, Omaha, in 1914.

B

BOOKS

The Medical Clinics of North America, Volume IV, Number IV (Philadelphia Number, January, 1921). Octavo of 355 pages, 37 illustrations. Philadelphia and London: W. B. Saunders Company, 1921, Published Bi-Monthly. Price per Clinic year: Paper, \$12.00. Cloth, \$16.00.

In the January number of the clinics, Dr. Alfred Stengel has an article on the serum and blood treatment of pneumonia. A number of cases are reported in which serum from convalescents was used with excellent results.

Joseph Sailer reports a very interesting case of pernicious anemia treated by transfusion.

Elmer H. Funk has an article on the diaphragm and diaphragmitis giving some very valuable information concerning a much neglected structure. Dr. John H. Musser, Jr., presents a series of cases of nephritis. Dr. Francis S. Dercum has an article on diseases of the internal secretions with illustrative cases and Dr. E. J. G. Beardsley discusses the necessity for and the importance of routine procedures in clinical medicine.

Diagnostic and Therapeutic Technic. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, M.D., late Lieut.-Colonel, M.C., U.S.A., Attending Surgeon to the City Hospital; and to St. Bartholomew's Hospital, New York City; Consulting Surgeon to the Nassau Hospital, Mineola, L. I. Third Edition, Entirely Reset Octavo of 894 pages, with 892 illustrations, mostly original. Philadelphia and London: 1921. Cloth, \$8.00 net.

The third edition of this work shows considerable change and great improvement. The technique for all of the therapeutic procedures is carefully described and illustrated. All of the modern procedures are given with the latest improvements. This is one of the books no practitioner can dispense with without loss to himself and danger to his patients.

Keen's Surgerv. Volume VII. By Surgical Experts. Edited by W. W. Keen, M.D., L.L.D., Hon. F.R.C.S., Eng and Edin., Emeritus Professor of the Principles of Surgery and Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo of 855 pages, with 359 illustrations 17 of them in colors. Philadelphia and London: W. B. Saunders Company, 1921.

Vol. VII of Keen's Surgerv has been received. It is one of the supplemental volumes made necessary by the remarkable contributions to the art of surgerv made by the Great War. In this volume the authors have presented the difficulties that confronted them and have described the various means by which these difficulties were met. It is a remarkable compilation of surgical data showing the results of co-operative efforts.

Massage and Exercises Combined, with 86 illustrations, by Albrecht Jensen, formerly in charge of Medical Massage Clinic at Polyclinic Hospital and other hospitals, New York. Published by The Author, Box 73, G. P. O., New York.

The author explains the principles upon which his methods are devised and gives some very interesting reasons for the superiority of his methods. The movements and exercises are very carefully illustrated with both male and female figures.

Epidemic Respiratory Disease. The pneumonias and other infections of the respiratory tract accompanying influenza and measles, by Eugene L. Opie, M.D., Prof. of Pathology, Washington University School of Medicine; Francis G. Blake, M.D., Associate member Rockefeller Institute for Medical Research; James C.

Small, M.D., Bacteriologist, Philadelphia General Hospital; Thomas M. Rivers, M.D., Associate in Bacteriology, Johns Hopkins University. Illustrated. Published by C. V. Mosby Company, St. Louis. Price \$6.50.

The authors present a considerable amount of data secured from the army hospitals during the epidemic periods of influenza, and the conclusions at which they arrived. For instance "the bacteriologic studies in cases of influenza described in this report fully support Pfeiffer's claim that B. influenza is invariably present in the disease."

Perhaps the most interesting chapter in the book discusses the pathology and bacteriology of pneumonia following influenza.

—P—
C. & C. Bureau

Every week shows a little more interest in the Bureau. In order that this work may be made the success it should be made every member of the society must take advantage of its facilities. You must not expect the Bureau only to help you, but you must help the Bureau to help others. It must be a co-operative system. The man who refuses to pay Dr. A. will most likely also refuse to pay you. In sending in your accounts, give the name in full if possible, the occupation if known or can be learned, the correct address or the last known address.

The Bureau would like to have the present addresses of the following. If you can aid in locating any of these parties you will be helping the Bureau, helping yourselves and will probably be doing a favor to the parties themselves.

<i>Present addresses wanted.</i>	<i>Last known address</i>
Bailey, Miss Myrtle.....	Crenola, Kan.
Bently, G. A.....	Rock or Wichita, Kan.
Bittle, A. L.....	Winfield, Kan.
Blue, D. A.....	Winfield, Kan.
Brooks, Emerv.	Winfield, Kan.
Browdy, B. C.....	Winfield, Kan.
Cantrell, T. D.....	Miami, Okla.
Cantrall, Forest S.....	Winfield, Kan.
Gardenhire, Charles.	Unknown
Courng, Chas	Winfield, Kan.
Dairs, Mrs. Mary.....	Winfield, Kan.
Davis, E. W.....	Winfield, Kan.
Decker, O. O.....	Winfield, Kan.
Dehlke, Henry.....	Winfield, Kan.
Doherty, Jas. J.....	Omaha, Neb.
Eakins, Roland.	Medicine Lodge, Kan.
Farmer, Roscow.	Winfield, Kan.
Farmer, R. F.....	Winfield, Kan.
Finney, Seaman.....	Winfield, Kan.
Freel, Axl.....	Maple Hill, or Auburn, Kan.
Gaertner, F. A.....	Larned, Kan.
Gates, Mrs. S.....	Beatrice, Neb.

George, C. C.....Quinter, Kan.
 Goodman, S. J.....Winfield, Kan.
 Gower, Mrs. Belle.....Winfield, Kan.
 Grissom, Mrs. Frank....201 East 8th, Hutchinson, Kan.
 Green, Robert.....St. Louis, Mo.
 Garrett, Robert.Blackwell, Okla.
 Griffith, L. W.....Oxford, Kan.
 Guthrie, Mrs. Queen..833 Armstrong, Kansas City, Kan.
 Hadley, Chas. L.....Newton, K Kan.
 Hall, Leonard.Winfield, Kan.
 Hamilton, Mrs. Lean.....Newkirk, Okla.
 Harden, P. M.....1625 E. 2nd St., Hutchinson, Kan.
 Hayes, John Robert.....Winfield, Kan.
 Hensley, Geo.....Little River, Kan., or Okla. City, Okla.
 Housh, Mrs. Geo.....Chanute, Kan.
 Houghton, Mrs.....Winfield, Kan., R. F. D.
 Hetter, Walter.....Winfield, Kan.
 Hieron, W. A.....Winfield, Kan.
 Huston, Mrs. Kate.....Winfield, Kan.
 James, A. J.....Winfield, Kan.
 Jaynes, W. L.....820 Quincy St., Topeka, Kan.
 Kirkpatrick, F. W.....Winfield, Kan.
 Lock, Mrs. G. W.....615 Polk St., Topeka, Kan.
 Lenz, Abraham..Care Fractman Clo. Co., Wichita, Kan.
 McCoy, Harry.....Gordon or Wichita, Kan.
 Marquitz, Joe.Winfield, Kan.
 Moore, John.....Wichita, Kan.
 Mosier, H. A.....Cedar Vale, Kan.
 Moon, C. J.....Winfield, Kan.
 Myler, L. S.....Winfield, or Chanute, Kan.
 Nelson, Fred.....Winfield, Kan.
 Oneal, Seth.Tulsa, Okla.
 Overlin, E. J.....Oxford, Kan.
 Oxley, W. S.....Winfield, Kan.
 Page, Geo.901 E. 9th St., Winfield, Kan.
 Petty, E.Topeka, Kan.
 Palmer, Mrs. C. B....1808 Munson St., Topeka, Kan.
 Peacock, L. O.....Winfield, Kan.
 Ray, Mrs. L. L.....Winfield, Kan.
 Raymond, Harry.Unknown
 Rees, Olean A.....Topeka, Kan.
 Richards, Fred.....Towanda, Kan.
 Riley, Leroy.Winfield, Kan.
 Roger, Winchel.Winfield, Kan.
 Sheets, Mrs. May.....Rock, or Winfield, Kan.
 Sigel, Mrs. Katherine.....Winfield, Kan.
 Simmons, Frank.Hays, Kan.
 Simmons, Mrs. W. M....1015 Quincy St., Topeka, Kan.
 Smith, Hobart....529 N. Jackson St., Hutchinson, Kan.
 Sprague, C. H.....Moline, Kan.
 Stillwell, Sam.Welch, Okla.
 Stocklings, W. E.....Wichita, Kan.
 Taylor, Frank.Winfield, Kan.
 Tharp, H. J.....Winfield, Kan.
 Treet, F. L.....Winfield, Kan.
 Triplet, J. W.....Winfield, Kan.
 Waddell, Lawrence.Eldorado, Kan.
 Waldroupe, H. E.....Winfield, Kan.
 Weber, E. S.....Winfield, Kan.
 Weed, B. R.....Winfield, Kan.
 West, Miss Bessie.....Winfield, Kan.
 White, Miss Amelia.....Winfield, Kan.
 Whiteman, A. L.....Cambridge, Kan.
 Wilson, Gertrude.....Winfield, Kan.
 Williams, A. H.....New Salem, Kan.
 Williams, L. J.....Dexter, Kan.

—R—

Wisconsin Home-Coming

The State Medical Society of Wisconsin will celebrate its seventy-fifth birthday by holding a "Home-Coming" meeting in Milwaukee, September 7, 8 and 9, 1921. All former Wiscon-

sin men, whether they have practiced there or left Wisconsin to study medicine, practicing elsewhere after graduating, are invited to this home-coming.

The officers of the society are anxious to secure at this time for mailing purposes the names of all former Wisconsin men. They will confer a favor by sending their names and addresses to Dr. Rock Sleyster, Secretary, Wauwatosa, Wisconsin.

—R—

Meat for the Hospital

(By a Member of the Department of Food Economics, Armour and Company)

Probably there is no class of caterers who have a harder problem than the person who plans for the hospital meal. Here they plan for the hard working help, the brain worker, and the convalescent or the sick person with the finicky appetite, as well as all the various special diets. Here more than anywhere else a knowledge of the use of the various cuts of meat is desirable. Here appetite appeal is very important. The successful dietitian is one who can use the same kind of meat many times and have it look and taste different. Nothing is less appetizing than to have the meal come to the table day after day looking and tasting just like the previous meal.

With these thoughts before us let us consider the so-called cheaper cuts of meat with the wide variety they make possible. The round, rump, shanks, plate, flanks and chuck constitute three-quarters of the weight of the entire carcass. Because the demand is for loins and steaks that need no special skill in preparation, the heavier cuts are less expensive. While the long fibre which is characteristic of these cuts requires skill to prepare, so far as nourishment is concerned we find that there is practically no difference. For instance we find that a pound of medium fat beef rump contains 1400 calories of fuel value and a chuck 1105.

Having established a logical reason for these cuts being cheaper and realizing that there is practically no nutritive difference between them and the higher priced cuts, let us consider what skill is necessary to make them palatable.

One principle of cookery which will always govern is to subject the meat to the greatest heat first. Brown thoroughly the entire outside

surface. This will keep in the natural juices of the meat. Then heat and add whatever liquid you have decided to use. Cover the pan tightly, reduce the heat and allow the meat to cook slowly until tender. During the entire process of cooking, after the liquid has been added, the temperature should be below the boiling point.

The seasoning of any dish is important to make it palatable. The enormous shipping facilities of today enable us to procure an endless variety of spices, herbs and seasonings. These make possible so many combinations that one seldom needs to use the same flavor twice. Thus two meat dishes, although they are made from similar cuts need not taste the same.

For some who do not care for the piquant flavor of the spices, or in cases where the carbohydrate content of the vegetable may be desirable, the vegetables may be added to the meat and cooked with it. In the case of children or others who think they don't like certain vegetables such as carrots or onions, the vegetables may be removed from the juice before the meat is served.

Next is the appearance of the dish. If you have ever had a long siege of illness you can sympathize with the person who will turn away leaving his meal untouched or the one who will eat it under protest. It is so easy to make a little change in the appearance of a dish. Have the portion neat and the garnishings fresh and clean. There is every reason why the hospital should be genuinely concerned over the appearance of a tray no matter how strict the diet of the patient.

Such points are important also when serving the meals of the workers, as they help to eliminate waste. A hard working man or woman will eat all the food on his plate if it is well seasoned and appetizing in its appearance.

Diphtheria Carriers

George H. Weaver, Chicago (Journal A. M. A., March 26, 1921), has tabulated 500 consecutive cases of diphtheria which were treated in Duran Hospital between February, 1913, and September, 1920. Patients with laryngeal diphtheria and those who died early are excluded. The series includes fifteen cases in which operative measures were employed in getting rid of the bacilli. The frequency with

which two negative cultures are followed by positive ones early led to the adoption of three consecutive negative cultures taken at intervals of from one to three days from both nose and throat as a standard for release. After the first week, approximately half of the cases that began any week as positive became negative during the following seven days. Three weeks after the onset, 71.2 per cent of the cases had become negative. At the end of four weeks, 83.2 per cent were free of bacilli; and after seven weeks, less than 1 per cent yielded positive cultures. In only a single instance were cultures positive after eleven weeks. Of the 500 patients, eighty-four, or 16.8 per cent, became carriers, that is, gave positive cultures after twenty-eight days. During 1913 to 1920, fifty-two patients entered Durand Hospital as carriers and were observed until free from bacilli with no operative interference. Of these, 55.8 per cent were free of bacilli after two weeks, and 80.8 per cent after four weeks. The rate of disappearance of the bacilli did not show any such regularity as was observed in the series following diphtheria. Of the fifty-two patients, nineteen had been in contact with diphtheria, and twelve gave histories of recent sore throat. The bacilli were located in the nose in nine, in two of which there was an associated foreign body in one nostril. In ten of the fifty-two patients the bacilli persisted longer than four weeks. The persistent pharyngeal cultures were associated with abnormal tonsils, usually enlarged, with deep crypts and roughened surface. In the nasal cases there were discharges associated with enlarged adenoids and chronic rhinitis, usually secondary to accessory sinus disease. Culture from six of three patients were tested for virulence, and a single one was nonvirulent. As is the case with many bacteria, the largest factor in the removal of diphtheria bacilli from the body appears to be destruction by leukocytes. An essential factor in this process of phagocytosis is suitable opsonin. The local use of antitoxic serum and of serum produced by immunizing with the bacterial bodies has not been followed by any satisfactory results. Vaccines have not been of any certain value, and this was to be expected, as carriers usually have an abundant supply of opsonins and their blood leukocytes are active. Efforts to clean up carriers are now confined to such measures as aid in removing local conditions that favor the retention of the bacilli. Washes are employed to remove secretions and discharges. Measures are used to facilitate drainage from the accessory sinuses and the nostrils. Irritating solutions are especially avoided. When the bacilli persist after such treatment, operative procedures are instituted if the localization of the bacilli is such that any benefit can

be expected. The operations performed have been tonsillectomy and, when the adenoids are enlarged, adenoidectomy. Early disappearance of the bacilli has followed the operations in every case. Removal of the tonsils and enlarged adenoids is advised at the end of a month if the bacilli persist, or as soon afterward as the general condition of the patient warrants. In small children, in whom prolonged isolation is not very objectionable and in whom operative measures are less satisfactory, it is customary to wait for the natural disappearance of the bacilli, making use of such local measures as seem indicated. When the bacilli persist in the nose, local lesions in the nostrils and, in children, foreign bodies are looked for. When an individual has become a carrier, the measures to be instituted should vary according as the bacilli are or are not virulent. In all noncontact carriers the virulence of the bacilli should be tested. This allows most such individuals to be dismissed as not dangerous to others. "Convalescent" and "contact" carriers must always be considered sources of danger. If the carriage is persistent, a test of virulence will occasionally reveal a non-virulent bacillus and allow the possessor to be released from restraint. Persistent carriers of virulent bacilli generally present some local pathologic condition in the throat or nose, the correction of which is usually followed by disappearance of the bacilli. No satisfactory means has been devised for destroying the bacilli. When local measures are of value it is usually because they aid in correcting abnormal conditions which interfere with the destruction of the bacilli by the natural bactericidal processes of the body. If such local treatment has been unsuccessful, removal of tonsils and adenoids will usually be followed by the disappearance of the bacilli.

—R—

Acidemia in Chronic Nephritis

Beaumont S. Cornell, Brockville, Ont. (Journal A. M. A., March 12, 1921), says, in a discussion of noncardiac dyspnea, that for the purpose of distinguishing it from heart dyspnea, two observations are helpful: It has no accompanying cyanosis, and it is speedily removed by the administration of sodium carbonate by mouth. From a study of more than 100 cases of chronic nephritis made by the author, it is apparent that various degrees of this dyspnea occur. Some patients (5 per cent) show none at all. The majority have it, but not sufficiently to complain of it. Perhaps a fifth of them will mention it; and, finally, in about 5 per cent of cases it is the most distressing symptom. On what factors the degree of the dyspnea depends is uncertain. No doubt the degree of acidemia

and the degree of sensitiveness of the respiratory center are cardinal considerations. But, beyond these again, why should the blood of a nephritic be unable to rid itself of the acids of exercise as quickly as the blood of a normal individual? The explanation probably does not lie in the fact of lowered renal excretion, because (as seen above) the 50 per cent patient may be as dyspneic as the 16 per cent patient. The practical value of clinical detection of acidemia is twofold: (1) *In Early Diagnosis*.—A syndrome of lumbar pain, frequency (day or night) and dyspnea of noncardiac origin is suggestive of incipient nephritis, even in the absence of albumin. Noncardiac dyspnea is a very early symptom in nephritis and has frequently led me to prolong the search for albumin with ultimate success, even though the albumin was absent as long as two weeks. (2) *In Treatment*.—The physician will frequently meet a nephritic whose distressing dyspnea fails to respond to digitalis; he has no cyanosis or cardiac enlargement or signs of cardiac decompensation. To this patient sodium bicarbonate (pure) in sufficient doses gives prompt relief. So far as I know, there is no contraindication to its use. The only caution, perhaps, should be not to render the urine alkaline for too long a period, thereby facilitating phosphatic deposits.

—R—

The Romance of Adrenalin

An old adage says that "Truth is stranger than fiction." Has the reader ever stood near one of our great railway arteries watching the passage of a heavily laden cattle train? Has he observed how closely the animals, about twenty in all, are packed into each car? A train-load of sixty cars, 2400 feet long, carries 1200 cattle; and nine such trains, about four miles long, are required to transport 10,800 animals.

But what has this to do with Adrenalin? Simply this: To obtain one pound of this remarkable substance in crystalline form the suprarenal glands of six train-loads of beef cattle must be collected and treated. Think what that means. It almost savors of the romantic.

The preparation of Adrenalin is not done by tyros. In the laboratories of Parke, Davis & Co., who gave Adrenalin to medicine, costly and elaborate apparatus has been devised and is presided over by highly skilled technicians in chemistry. Under their dextrous manipulation the delicate principle is extracted from the medullary portion of the gland and purified for subsequent use in preparing the various solutions. Adrenalin is readily affected by oxygen, and for that reason all through the process especial care is taken to protect it from

oxidation, with such notable success that the solutions reach the physician absolutely unimpaired and of full strength.

In some respects Adrenalin is the most wonderful and interesting endocrine product now known. Its action is virtually instantaneous and dramatic. It blanches tissue as no other substance does. It controls capillary bleeding, cuts short the paroxysm of asthma, supports the heart and circulation when depressed, reinforces the action of local anesthetics and makes it possible to do with less of them. It is a valuable test for certain obscure pathologic conditions, as latent hyperthyroidism.

Parke, Davis & Co. publish attractive literature on Adrenalin for gratuitous distribution to physicians. Write to them for a supply, and after reading it file it for future reference.

—R—

Organ Stimulation by the Roentgen Ray

William F. Petersen and Clarence C. Saelhof, Chicago (Journal A. M. A., March 12, 1921), after animal experimentation have reached certain conclusions, among which are these: The roentgen ray, in proper dosage, has the property of stimulating cellular metabolism. When organs are selectively stimulated, by roentgen rays, therapeutic results can be achieved either by direct stimulation or an external secretion (the kidney) or of an internal secretion (the pancreas in diabetes). A second method of possibly influencing remote pathologic lesions lies in the mobilization of antibodies, enzymes and thromboplastic substances following selective organ stimulation. The effects on tuberculosis (irradiation of the spleen), on hemophilia and purpura (irradiation of the spleen) and some of the effects on malignant tissues can possibly be examined from this point of view with profit. It is probable that the indications of roentgen-ray therapy in the treatment of internal diseases will find marked extension if proper recognition is given the possibility of organ stimulation by such physical means.

—R—

Achievement of Army Medical Department in World War

Whatever is due the Medical Department of the United States Army for its achievements during the recent war, Merritte W. Ireland, Washington, D. C. (Journal A. M. A., March 19, 1921), says may be credited to the training and experience of its regular personnel, on the administrative side, and to the generous and efficient co-operation of the physicians and surgeons of this country, on the professional side. On the side of medical administration, we en-

tered the European war with much better preparation than had been the lot of our forces in either the Civil War or the Spanish-American War. When we entered the European war, our army existed mainly on paper, as "tables of organization," blank forms to be filled in as to personnel and material on occasion. In the Texan mobilization we had, for the first time since the Civil War, a mobilized division in the field. After discussing results of the activities of the medical department of the army, Ireland outlines a program for the future. It is incumbent on the Medical Department not merely to institute educational training of enlisted men as clinical clerks and surgical dressers in the hospitals, but also to train specialists among our commissioned personnel in all the important branches of scientific medicine. In the medical establishment of the British army, steps have already been taken in this direction by the appointment of whole-time chiefs of surgery and pathology. In the contemplated enlargement of the Walter Reed Hospital, this program can be carried out by our Army Medical School in full measure.

—R—

The Cerebrospinal Fluid in Treated Syphilis

The cerebrospinal fluid of 642 syphilitic patients in all stages of the disease, but without demonstrable physical evidence of neurosyphilis of any type, was examined by Joseph Earle Moore, Baltimore (Journal A. M. A., March 19, 1921), after from two to six months of anti-syphilitic treatment. Of thirty-four patients with primary syphilis in which treatment was begun before the appearance of secondary symptoms, only one (2.9 per cent) showed an abnormal spinal fluid. After the appearance of secondary symptoms, the incidence of abnormal spinal fluid findings was about the same (from 12 to 15 per cent), no matter how long the disease had existed, or by what lesions it was apparent. Only 12.7 per cent of these 642 patients showed spinal fluid abnormalities, showing that the amount of treatment administered had been successful in clearing up at least half of the early changes noted by other workers in untreated cases. As minor signs of value in predicting the probability of neurosyphilis are a persistently positive blood Wassermann reaction after treatment, slight pupillary abnormalities, and certain complaints of the patient, namely, headache, nervousness, lassitude and generalized neuralgic pains. Of 173 patients who showed such signs, the spinal fluid was abnormal in forty-nine, or 28.3 per cent. On the other hand, of 469 patients in whom neither these nor other more serious neurologic damage was demonstrable, only thirty-three, or 7.03 per

cent, showed abnormal spinal fluids. In general, the serologic evidence of asymptomatic neurosyphilis can be caused to disappear by prolonged, intensive, routine antisyphilitic treatment. Moore urges that study of the spinal fluid should be carried out as a routine in all syphilitic patients, as an essential to intelligent treatment. Spinal puncture should be performed after the first or second course of arsphenamin, and should be repeated at least once before the patient is discharged as presumably cured. If this is done in every case of syphilis, and treatment intelligently administered according to the results obtained, the incidence of clinical neurosyphilis may be reduced to an absolute minimum.

—R—

Congenital Dorsal Scoliosis Due to Spinal Defect

In the case cited by Carroll L. Storey and Carl C. Birkelo, Detroit (Journal A. M. A., March 19, 1921), the spinous processes of the sixth, seventh and eighth dorsal vertebrae were rather sharply displaced to the right, the greatest deviation amounting to one-half inch. No secondary curves appeared above or below. The flexibility of the spine was somewhat limited in the middorsal region, and normal elsewhere. Twelve ribs could be palpated on the right side, twelve on the left. The upper left rib appeared, however, to be attached to the seventh cervical vertebra. Only eleven dorsal spinous processes were palpable. Stereoscopic plates of the spine revealed two points of abnormality, namely, in the seventh cervical and the eighth dorsal vertebrae. The seventh cervical vertebra had a fully developed rib on the left side and a short rudimentary rib on the right. The eighth dorsal vertebra was rudimentary and consisted of a small triangular body wedged in between the seventh and ninth vertebrae on the right side with a unilaterally developed pedicle, transverse and spinous process in no respect different from the corresponding parts on the other vertebrae above and below it. A fully developed rib articulated with it on the right side, and there was no attempt at a corresponding rib on the left side. Thus, there were twelve fully developed ribs on each side, but the first rib on the left was cervical, and counting the rudiment from the seventh cervical vertebra on the right, there were thirteen ribs on that side.

—R—

Intravenous Use of Corpus Luteum Extract in Nausea of Pregnancy

Intravenous injection, John C. Hirst, Philadelphia (Journal A. M. A., March 19, 1921), believes is the ideal method of administration of corpus luteum extract. The material used

is carried directly into the circulation, giving the most rapid absorption possible. It is possible and advisable to use a considerably larger dose (two or three ampules) than is possible with the intramuscular injection, in which more than 1 c.c. causes considerable local reaction. Each ampule contains only 0.2 gm. of the extract, and in this way the necessary total quantity can be introduced more easily and quickly. There is no local reaction or discomfort of any kind after the injection. Intravenous administration often controls the vomiting promptly, in cases in which intramuscular use has failed. The method of administration does not differ materially from the ordinary intravenous injection. The dosage will vary, depending on the type of case under treatment. Ambulatory patients who can come to the office usually receive 2 c.c. every other day. In more severe cases, when office visits would be a hardship, the patients receive 2 c.c. daily, given at home. In pernicious cases 2 c.c. is given twice daily, and the patients are confined to bed. Experience has shown that every patient should receive at least 12 c.c. entirely irrespective of the fact that they respond quickly and favorably to a smaller number. If fewer are used, relapses are common, and are more difficult of control than the original attack. Anaphylactic reactions need not be feared. The presence of a goiter in early pregnancy absolutely contraindicates the administration of corpus luteum extract, either intravenously or intramuscularly, for the control of nausea. In Hirst's experience, every such patient has been made much worse by this treatment.

—R—

Arteriosclerosis and Cardiovascular Disease

Five hundred consecutive complete necropsies were selected by William Ophuls, San Francisco (Journal A. M. A., March 12, 1921), to study the interrelation between certain infectious diseases and the later development of arteriosclerosis or of the syndrome of cardiovascular disease. This investigation again brought out strikingly that there is no direct relation between the extent and severity of the arterial disease and the amount of functional disturbance in the cardiovascular system. The special involvement of certain vascular territories, like that of the kidneys, also did not seem to be of any particular importance in this connection. Arteriosclerosis and hypertension are, therefore, rather loosely associated phenomena, possibly connected with each other by their common relation to certain infections, which at times may produce marked anatomic lesions in them, or both severe lesions and marked functional derangement. The only really tangible connection between arterioscle-

rosis and chronic nephritis seems to be their common etiology, their interrelation in this regard being very similar to that between arteriosclerosis and hypertension.

—R—

Functions and Scope of an Industrial Clinic in a General Hospital

The great function of an industrial clinic Harry Linenthal, Boston (Journal A. M. A., March 12, 1921) says is to trace the part industry plays in producing the more common diseases seen in all classes of the community. If the effects of industry were only in the production of the specific occupational diseases, the problem would be comparatively easy and relatively unimportant: Easy, because the causal relation between the industrial condition and the resulting disease is manifest. Relatively unimportant, because the number of workers engaged in processes giving rise to specific industrial diseases are few in comparison with the vast army of workers who are exposed to the less specific hazards of irritating dust or fumes, of localized fatigues, of insanitary conditions, or who are constantly subjected to the monotony and general fatigue effects of modern industry.

—R—

Results of Operation for Varicocele

During the period immediately preceding and after the entrance of the United States into the World War and while recruiting was in active progress, a large number of operations for varicocele were performed on young men in order to permit their entrance into the Army or Navy. As a result of one of these operations in which the ligation of the veins was followed by the development of a hydrocele, a suit for alleged malpractice was brought. A search of the American literature at this time, in order that the highest medical authorities on the subject might be quoted, revealed the fact that modern textbooks on urology and on general surgery fail with one exception to recognize the frequency of this complication. John Douglas, New York (Journal A. M. A., March 12, 1921), after a study of the end-results of 303 operations for varicocele at St. Luke's Hospital, reached these conclusions: The operative treatment of varicocele is frequently followed by hydrocele. Of a total of 303 operations, seventy-six patients were examined, thirty of whom, or 39 per cent, had a hydrocele; forty reported by letter or telephone, and of these seven, 17 per cent stated that hydrocele had developed. Of the total of 106 patients examined or reporting by letter, thirty-seven, or 35 per cent, had hydrocele. Four, or about 4 per cent, had

atrophy of the testicle, and there were two recurrences of the varicocele. The operation should not be performed except in those cases of very large varicocele giving marked symptoms in a non-neurasthenic patient—certainly not in the type of cases previously referred by the various medical examining boards for admission to the Army or Navy. If the operation is undertaken, the frequency of hydrocele as a complication should be explained to the patient as a protection to the operating surgeon. In the performance of the operation every care should be taken to avoid trauma to the veins of the cord, and to prevent hematoma or even slight infection, and thus to limit thrombosis and also to avoid the ligation of the spermatic artery as well as the artery of the vas.

—R—

Supernumerary Breast on Buttock

Percy A. Perkins, Memphis, Tenn. (Journal A. M. A., March 19, 1921) cites the case of a man, aged 59, who first began to give serious thought to a tumor on the buttock at about the age of 17 years. At that time, it began secreting a fluid which at times was whitish, but usually of a prune juice color. This took place monthly and lasted only a few days at a time. This secretion caused some inconvenience by wetting the clothes, and it was necessary to wear a pad over it. At the age of 33, the secreting stopped. It has never caused any pain or trouble of any kind. No other abnormalities of development were found. The gland on the right buttock was about the size of an orange. It had the sagging appearance of a breast in a woman of the same age. The nipple was well developed, and slightly larger than usual. No tenderness or masses were found.

—R—

Action of Mercurochrome 220 on Gonococcus

The experiments made by Ernest O. Swartz, Cincinnati, and David M. Davis, Baltimore (Journal A. M. A., March 26, 1921), demonstrate that mercurochrome-220 has a powerful germicidal action against the gonococcus. In clinical trials, while it has proved to be a useful agent in the treatment of gonorrhea, it is not a panacea for all gonococcal infections. There is, however, a rather rapid decline in the germicidal power of mercurochrome-220 when its solutions are allowed to stand. Owing to the apparent stability of the solutions, many have made them up in large quantities, to be used as occasion offered. This may explain many of the conflicting clinical results and failures to obtain the expected effects. Solutions of mercurochrome-220 should undoubtedly be made freshly for clinical use.

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Palpitation and Its Classification

With people who suffer from repeated attacks of auricular flutter, Louis Faugeres Bishop, New York (Journal A. M. A., March 19, 1921), claims it is good policy to keep a certain amount of digitalis in the system so that an attack may be more quickly controlled when it occurs. Not all attacks of flutter, however, are converted into fibrillation by digitalis. In many cases the attack terminates abruptly on the use of digitalis, and the heart is at once made regular, except, perhaps, for the occurrence of premature contractions for a short time.

Aid in Diagnosis of Tumor of Urinary Bladder

David R. Mellen, Rochester, N. Y. (Journal A. M. A., March 19, 1921), endorses the use of the roentgen ray in the diagnosis of tumors of the bladder. It is suggested that one should take an air cystogram first, then fill the bladder with sodium bromid solution, either 15 or 25 per cent, and take a second picture, and lastly take an immediate picture after emptying the bladder.

Diagnostic Significance of Jacksonian Epilepsy

George Wilson, Philadelphia (Journal A. M. A., March 26, 1921), states that Jacksonian spasm is by no means diagnostic of a lesion of the motor cortex. Probably the commonest cause of this form of spasm is idiopathic epilepsy itself, and a careful examination with close scrutiny of the facts and history may prevent many errors in diagnosis. A person with Jacksonian epilepsy should not be operated on unless other signs and symptoms of intracranial disease are present.

Gallbladder Disease

Donald S. Adams, Worcester, Mass. (Journal A. M. A., March 12, 1921), analyzes the results of operations on the gallbladder. Of 135 patients on whom a cholecystostomy was performed, 71.8 per cent are well; 18.4 per cent are improved and 9.8 per cent remain unimproved. Of 70 cases of cholecystectomy, 82.8 per cent of the patients are well; 10 per cent are improved and 7.2 per cent remain unimproved.

Duodenal Diverticulum

The patient whose history is given by Dean Lewis, Chicago (Journal A. M. A., March 9,

1921), suffered at times from severe pain and tenderness, localized just below the costal margin on the right side. The pain simulated more closely that of gallstones than stomach ulcer. The symptoms were not suggestive enough of ulcer to warrant fluoroscopic examination. The severe pain was completely relieved by operation.

Application of Certain Physical Efficiency Tests

In the opinion of Verner T. Scott, Mitchell Field, L. I., N. Y. (Journal A. M. A., March 12, 1921), Schneider's test does not supplant, but should be used in conjunction with, a thorough physical examination. For use with aviators and athletes, this is the best test so far offered for measuring physical efficiency and fatigue.

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President's Address

C. KLIPPEL, M. D., Hutchinson

Annual Meeting Kansas Medical Society at Wichita,
April 26, 27, 28, 1921

After reading Chancellor Lindley's letter in the December number of the JOURNAL and Dr. Sudler's report of our medical school, present and prospective, and studying with some care the plans of Architect Ray Gamble as outlined in the same number of the JOURNAL, I became quite interested in making a survey of what might grow out of our present plans.

I visited Rosedale to get an idea of what we have at the present time to offer our students of medicine to induce them to study and labor to take a diploma from the University of Kansas School of Medicine. I had not expected to find anything very elaborate, but when shown about found even much less than I had anticipated.

The present equipment is hopelessly inadequate and must be brought up to recent standards if we can hope for our medical school to take a place among the schools of other states. The plans worked out by our architect would seem to meet all the requirements as to housing facilities, and that accomplished, the equipment must be made to correspond—must be brought up to modern requirements.

We are informed that it will require about \$3,000,000 to accomplish this work. Taken as a lump sum this would look like a large amount at least from the tax payers' standpoint, but when compared with other educational expenditures we find it is not excessive, and we must admit its relative importance. In fact, the building and maintaining of thoroughly equipped institutions for medical education and research

work along medical lines have long since been accepted.

The regular medical profession has done much in recent years along the line of preventive medicine. Only a few years ago Wright of England worked out and gave to the world his plan of treatment for the prevention of typhoid fever. This discovery has been of incalculable value to the people of the entire civilized world. Its value cannot be measured by billions of dollars, but by millions of human lives. In every war that has been waged typhoid fever claimed its victims by the thousands. It stood in the front rank among the diseases which caused more deaths than the sword. In the few months of our Spanish-American War there developed thousands of cases of typhoid fever and as usual in army camps a very high death rate occurred.

In our army of the great World War, with an enlistment of over four million men, we had so few cases of typhoid fever that the incident is scarcely worth mentioning. This great change was brought about by availing ourselves of Wright's discovery for the prevention of typhoid fever. Our soldiers were all carefully and thoroughly vaccinated against smallpox and inoculated against typhoid fever.

When our boys went over the top on the battle fields of France they met and defeated that crack Prussian Guard—the pride of the German military organization. At Chateau Thierry, St. Mihiel and the Argonne Forest they smashed the most formidable military machine ever marshalled on the field of battle.

Our boys composed an army of men stalwart in youth, health and manly vigor. They had a consciousness within themselves of their ability to cope with the enemy, no difference from whence it came. They believed they could whip

those trained German soldiers, and they did it. True they had the stimulus of fighting for a just cause. They followed the traditions of their forefathers in the defense of right and liberty against German military cruelty and autocratic tyranny.

Ridpath tells us that, in a few hours after our army engaged the Germans at Chateau Thierry, the word was flashed all along the battle line from the Alps to the North Sea—"The Americans have held the Germans—They can fight."

The invincible courage and determination with which those American soldiers fought struck terror to the hearts of the Boche veterans, and in many hand to hand engagements the Germans would turn and flee in disorder. The American people have just cause to be proud of the achievements of their brave sons, and the people of Kansas have a full right to join in this pride because we furnished our full quota of the best of them.

We might stop here and ask ourselves—why did this all come about? Why did these comparatively inexperienced soldiers turn an army of thoroughly trained and seasoned veterans and then in one grand dash set them to flight? I believe it can be answered in one short sentence—*THEY WERE PHYSICALLY FIT*—they had been reared under proper sanitary conditions. Many of them came from our best American families and had been given the advantage of physical training and correct ideas of the laws of health and hygiene. Not only this but their welfare was looked after at every turn while in the service of their country by a competent and intensely interested medical corps. Sanitary measures for their protection from diseases were constantly thrown around them. They were given the advantage of all that preventive medicine had at its command and that scientific research had demonstrated to be useful and valuable. What would have been the result if our camps had been allowed to become dirty, filthy and unsanitary? What would have been the result if loose medical regulations had been allowed to creep into the practice of our medical corps? The ranks of our great army would have been decimated by infectious diseases, and instead of the brilliant successes

they achieved, our army would have made a dismal failure and gone down to humiliating defeat. The one great medical practice alone of preventing typhoid fever saved thousands of lives and rendered efficient thousands of men who would have been a burden to the army and a menace to those who were still well and strong.

Over a hundred years ago Dr. Jenner, an English physician, developed and published to the medical profession a vaccination treatment for the prevention of smallpox. Vaccination became very generally used and many people were rendered immune and others who took the disease had it in such a mild form that its loathsomeness and virulence were no longer dreaded as had been the case in the past. But in recent years the medical profession has to some extent gone to sleep on the important subject of vaccination and in the United States at least smallpox has become markedly more prevalent.

The Metropolitan Insurance Company of New York recently made a survey of a number of eastern and central states and compiled statistics showing that the disease had increased 100 per cent in 1920 over 1919. The medical directors of this company assigned as a cause, a reaction against vaccination. Some doctors have become lukewarm on this subject. We have a few Bolsheviks in our ranks and some of the cults are outspoken in their opposition to vaccination. In communities where vaccination was required by a ruling of the boards of education before children were admitted to school, the conscientious objectors took the matter into the courts, standing on their constitutional rights and in a number of cases the courts decided in their favor. It is to be hoped that this reaction may not last long, for when the people can be made to realize that smallpox is rapidly increasing and is appearing in a much more virulent form with much of its old-time loathsomeness, even the Christian Scientists may be persuaded that they had better accept vaccination.

There has been to some extent the same kind of protest against the use of anti-toxine. I was much pleased to note recently that a judge in New Jersey fined a father \$1000 for not allowing anti-toxine to be used in the case of a child which had died of diphtheria. The parent was

a Christian Scientist and plead his religious belief as a defense for not using anti-toxine.

Medical research has recently developed many new and valuable things, among which we might mention the Carrel-Dakin treatment of septic wounds, the use of radium, the study of proteinosis, endocrinology, etc. Much has been done and much more will be done by these scientific developments to combat disease and help keep people well. But it is not necessary to say much in their defense, because they are being very ably pushed, and they are new. New things are always sought after by a large majority of people—therefore these new things will find their way into general use without much difficulty. I make an earnest appeal to you, however, in behalf of some of the old time-honored remedies and modes of practice such as vaccination, anti-toxine and typho-bacterin inoculation against typhoid fever.

Upon the regular profession of medicine falls the burden of developing the new things and defending the old and tried, therefore let us courageously defend these time-tried measures and not allow them to fall into disuse.

In the latter part of the 1880's the French Government undertook the task of organizing and financing a company to construct a tide water canal across the Isthmus of Panama. De Lesseps, one of the most competent civil engineers of his time, was given the job of working out the plans and superintending the work. The task was undertaken with the characteristic French energy and great hopes of its success were entertained.

But in that tropical climate infested with diseases incident to the torrid zone, surrounded by peculiar difficulties of drainage, and swarming with mosquitoes and insect life of all kinds, their laborers were stricken with diseases and died by the scores. It was then a common expression that in building the Panama railroad it had cost a human life for every tie laid in its construction. Under these discouraging and disheartening circumstances the enterprise was abandoned, everybody in a position making it possible got all the booty he could out of it and then packed his baggage and went home.

For over twenty years the possibility of constructing this great much needed water-way was

discussed by numerous nations but nothing of a definite nature was accomplished until, in President Roosevelt's administration, the United States Government undertook the colossal job and in about eight years it was carried to successful completion. No work, however, of any kind was even started until Surgeon General Gorgas with an able corps of sanitary experts—thoroughly scientific doctors—went down there and cleaned up that entire zone. Proper drainage was established, everything was cleaned up and thorough sewage was instituted. This all done, a well organized sanitary system was put in operation and maintained throughout the entire period of construction. Under these conditions it was made possible for men to live and work.

So thoroughly was the importance of this great medical work appreciated that General Goethals, who was given the credit for building this great water-way, asserted with much emphasis: "*Surgeon general Gorgas built the Panama Canal.*"

When we review the achievements of medical science in years gone by we have every reason to feel hopeful that greater things will be wrought out in the future. There are still vast fields that have not been explored; there are still important problems that should be solved.

I am pleased to know that much thought and attention are being directed to the cancer situation. We have some zealous workers who are giving much time to this discouraging subject and we should all contribute everything that comes up in our experience in the way of case reports and methods of treatment that have seemed to give us good results. I was very much pleased to note that Dr. Bloodgood will give us a lantern slide demonstration on the cancer problem this evening, to which the public is invited. We must arouse the people to the importance of an early recognition of this condition if we hope to do much good. And when we consider the fact that from 80,090 to 100,000 people die annually in the United States of cancer, we surely should be moved to study the cancer problem, and educate the people to seek medical advice as soon as any significant symptoms appear.

This and many other serious diseases are

more and more claiming our attention and we would be much better prepared to do our full part of this important work in the State of Kansas if we had a thoroughly up-to-date medical school. An institution embracing abundant hospital accommodations with a training school for nurses; complete laboratory equipment for all kinds of chemical, biological and experimental work.

There should also be a free dispensary for the benefit of the poor. There are a great many patients, especially among children, who could be sent to such a place for treatment if we were prepared to take care of them in the proper manner. Not only could we do a great deal of good in relieving these unfortunate sufferers, but these patients would furnish an immense amount of clinical material for the benefit of our medical students. This should embrace medical as well as surgical cases.

Some adequate provision should also be made for contagious cases. The best arrangement for this purpose would be a separate building with good hospital equipment.

We have a very good start in the way of suitable grounds upon which to place our buildings, and plans worked out that would seem to meet every necessary requirement.

The Legislature two years ago appropriated \$200,000 to start this work and at the last session an appropriation of \$400,000, including reappropriation of the \$200,000, was made, which will give us a very good start and if the work can be honestly done, with an eye to keeping the hoodlums and grafters out of it, we should be able to make a showing sufficiently attractive to encourage our future legislatures to make appropriations sufficient to carry the work to final completion.

But the doctors of the state should always keep this matter in mind and help to educate the people to realize the importance of our medical school and what it means to the youth of our state in the future. I feel confident in stating that almost every resident of the State of Kansas knows all about our Agricultural College, our State Normal schools and the State University. A greater part of them know that there is a law school in connection with the University—in fact a part of it. But there are

hundreds of people in the state who never knew that such a thing as a medical college ever had been thought of or undertaken. Every doctor in the state should make it his business to talk and work for our medical school. We should not wait until the next legislature convenes, and then get busy to lobby, but begin now to start propaganda during all the time that intervenes.

In cities where a Board of Trade or Chamber of Commerce exists the doctors could have charge of a meeting occasionally and at such meetings discuss this subject and acquaint the people with the benefits and necessities of a medical school and make an effort to have them realize its great importance in our educational system.

True, many of us older men will not live to see this work completed, but we should not stop on that account. The profession, young and old, should labor for this worthy cause just as earnestly as though we expected to avail ourselves of the benefits of the school as our Alma Mater. The man who is unwilling to do something for posterity lives a very narrow life, indeed. If we cannot start something for the benefit of future generations the purpose of our lives has only been partly met. We should spare no effort to keep the good work moving on and provide a first class medical school for our children and children's children.

I look forward with fond hope to the time when Kansas shall take rank with other progressive states and our children will know that they can get a medical education at home, in their own state.

Another thing should engage our attention, viz: the personnel of the faculty of this school. It should be composed of the best men available—men who are able to teach, men of unquestionable moral character and ethical practice. We cannot expect to have the respect of our students if they have reason to question a member of the faculty in regard to those qualities. In case any member comes under fire in regard to these matters he should be carefully investigated by the managing board and this board should make such changes as will serve the best interests of the school.

Hoping that the work started will be carried on and that the regular medical profession

will continue to put forth its very best efforts to produce the best that can be had, and that our children and children's children may be able to enjoy every advantage that is given to the children of other progressive states, I submit this question to the competent men who shall be called upon to guide and manage the KANSAS MEDICAL ASSOCIATION in the future.

—R—

Report of the State Necrology Committee for the Current Year

DR. ELMER E. LIGGETT, Chairman, Oswego

Since the last report at the Hutchinson meeting, 1920, the deaths of thirty-nine physicians in Kansas have been reported to the Committee on Necrology. Following the rules of the A. M. A., adding two and one-half percent to this on account of the delayed reports, and possible omissions, we may estimate the total number of deaths at forty. According to the Directory of the A. M. A. there are two thousand five hundred and fifty physicians in Kansas, and these forty deaths would be equivalent to an annual death rate of fifteen and seven tenths per thousand. The annual death rate for the United States and Canada, as given in the Journal of the A. M. A., is fourteen and forty-six hundredths per thousand. Therefore it will be seen that our death rate this year has been a little more than the average for the entire country.

The reports of these deaths were obtained from the Kansas Journal, and from the files of the Journal of the A. M. A. In addition to these sources letters were sent to the secretaries of the fifty-seven local societies in the state. Of these twenty-one reported no deaths, fourteen reported deaths, and no report was had from twenty two. It is presumed that no deaths occurred in the jurisdiction of these twenty two. So if we accept these figures as correct without adding the two and one-half per cent, our mortality would be just about the average.

Of the thirty-nine who died 12 were members of our State Society, and 27 were not.

Of the thirty-four deceased, whose ages were stated, one was under thirty, one was between thirty-one and forty, five were between forty-

one and fifty, seven were between fifty-one and sixty, eleven were between sixty-one and seventy, four were between seventy-one and eighty, five were between eighty-one and ninety, and five were not given.

In ten cases the cause of death was not given. Heart disease caused the death of five, senility four, carcinoma three, cerebral hemorrhage three, nephritis two, diabetes two, paralysis, influenza, surgical operation, pneumonia, arterio-sclerosis, cirrhosis of the liver, consumption, brain tumor, and pernicious anemia one each. One was crushed under an automobile, and another suffering from carcinoma fell out of a window while delirious and was killed. The most frequent cause of death given was heart disease, next to this was senility, followed by cerebral hemorrhage, and then carcinoma.

Of the civil positions held, two had been State Senators, one a coroner, one a contract surgeon in the U. S. Army, one a pension examiner, one a former court reporter in Wisconsin, and one had been twice mayor of his city.

The dates of the deaths were not given in five cases. Six deaths occurred during the last part of April, 1920, and the first part of April, 1921, one occurred in May, 1920, two in June, four in July, three in August, one in September, one in October, one in November, one in December, five in January, three in February, and five in March. It will be seen that the mortality was greatest during April, March, January and July, and that cardio-vascular disease was the most frequent cause of death.

There are one hundred and five counties in the State, of which fifty-seven have local Societies. Of these 21 report no deaths: Allen, Bourbon, Clay, Doniphan, Franklin, Finney, Harvey, Kingman, Linn, Miami, Neosho, Norton-Decatur, Rice, Riley, Sedgwick, Shawnee, Smith, Stafford, Sumner, Wilson, Woodson; 14 report deaths: Barton, Cherokee, Coffey, Cowley, Crawford, Douglas, Ford, Labette, Leavenworth (N. E.), Marshall, McPherson, Montgomery, Reno, Tri-Co.; 22 do not report: Anderson, Atchison, Brown, Cloud, Central Kan., Dickinson, Elk, Harper, Jackson, Jefferson, Johnson, Lincoln, Lyon, Mead-Seward, Mitchell,

Nemaha, Osage, Pawnee, Pratt, Saline, Washington, Wyandotte.

CHARLES H. ANGAVINE, Lawrence, general practice, Eclectic, died April 11, 1920, of general paralysis. Not a member of the Society.

CHARLES M. ARBUTHNOT, Belleville, aged 68, died Oct. 3. He was graduated from Jefferson Medical College in 1881.

ALEXANDER K. BERRY, Burlington, aged 68, graduate of State University of Iowa, 1894, vice president of Coffey County Medical Society, died Aug. 20, from a fall from window while delirious after operation for carcinoma of the intestines.

CORRESTA T. CANFIELD, Pittsburg, aged 87, died at the home of his daughter May 1, from influenza. He graduated from the Homeopathic Hospital College, Cleveland, 1872.

WILLIAM J. CONNER, Labette, aged 84, died at the home of his daughter in Parsons, June 1. He was graduated from the Cincinnati College of Physicians and Surgeons 1862, practiced in Kansas 53 years and was once State Senator.

CHARLES OSCAR CRANSTON, Parsons, aged 51, a graduate of the Kansas City Medical College 1894, died July 18, at St. John's Hospital, Joplin, Mo., following a surgical operation.

FRANK DEVILBIS, Clyde, aged 61, died Dec. 20, from pneumonia. He graduated from Missouri Medical College, St. Louis, in 1883. Was at one time State Senator.

JOHANNES ALFRED ELMERE, Osage City, aged 54, died at the Swedish Hospital, Kansas City, Mo., Nov. 18, from carcinoma. He graduated from the Kansas Medical College, Topeka, in 1894.

ROBERT B. ENGLISH, Columbus, aged 70, died Mar. 13, of heart disease. He graduated from St. Louis Medical College 1874, and was coroner of Cherokee County several times.

GEORGE EMERSON, Winfield, a graduate of Albany Medical College 1873, died in Winfield, April 11, 1921. He was one of the pioneers of the State and was a very prominent surgeon, having done the first laparotomy in the State.

JOSEPH L. EYEMAN, El Dorado, aged 61, died Feb. 23, from chronic interstitial nephritis. He graduated from Northwestern Medical College, St. Joseph, Mo., 1887. He was one time a contract surgeon U. S. Army.

ALEXANDER D. FARNSWORTH, Arkansas City, aged 46, was instantly killed Jan. 31, by the overturning of his automobile. He graduated from the University Medical College of Kansas City, Mo., 1898.

ALBERT G. GIRARD, Clyde, aged 49, died April 18, 1920, from carcinoma of the glottis. He graduated from the Western University, London, Ont., in 1907.

ORMAN G. GOWIN, McCune, aged 60, a graduate of the Eclectic Medical College in 1882, died Sept. 18.

EVA HARDING, Topeka, aged 63, died July 27. Dr. Harding was a graduate of Hahnemann Medical College, Chicago, in 1882.

JAMES HAWKINS, Dodge City, retired, aged 33, died Nov. 10. He was a veteran of the Civil War, and a member of the Board of Pension Examiners for a number of years.

JAMES A. HAZEL, Freeport, aged 65, died April 24, 1920, at his home, of arterio-sclerosis. He began the practice of medicine at Milan in 1882, and removed to Freeport in 1895. Was licensed Kansas Board of Medical Examiners 1901, and had practiced for forty years continuously until a few weeks prior to his death. He was a member of the Harper County Society.

H. V. HEWETT, Girard, aged 43, died of heart complication. He was a graduate of the University Medical College, Kansas City, Mo., 1904.

HENDERSON HINES, Rago, aged 69, died July 15, of cirrhosis of the liver. He was a graduate of the Cincinnati College of Medicine and Surgery 1866.

JOHN HORNER, White Water, aged 87, Eclectic Medical Institute 1880, for fifty years a resident of Butler County, died June 19.

WILLIAM JACOBS, Washington, aged 75, died July 16. He was a graduate of the American Medical College, Eclectic, St. Louis, in 1876.

MONROE E. JOHNSON, Pittsburg, aged 68, died of pulmonary tuberculosis. He was a graduate of Miami Medical College, Cincinnati, 1880, but not a member of the Society.

THOMAS ALMON JONES, Hutchinson, aged 42, died of diabetes, Feb. 11, Pasadena, Cal. He was a graduate of Rush Medical College 1907, and founder of the Hutchinson Hospital, and a member of the Kansas Medical Society.

WALTER H. KIRKPATRICK, Haven, aged 39, graduate of the University Medical College, Kansas City, Mo., 1908, Lt. Kan. N. G. during the World War, discharged May 26, 1919, died of acute dilation of the heart while swimming at a summer resort near Boston.

CHRISTOPHER EUGENE LETT, Emporia, aged 54, died from cerebral hemorrhage April 7, 1920. He was graduated from the Kansas Medical College at Topeka, 1909.

JACOB W. LIGHT, Kingman, aged 60, a graduate of Pulse Medical College, Cincinnati, 1884, a member of the Kingman County Medical Society, died in Santa Monica, Cal., Aug. 12, from heart disease.

LAWRENCE ANDREW LYNCH, Kansas City, aged 28, died Jan. 3. He graduated from John A. Creighton Medical College, Omaha, in 1914.

JAMES McCULLY, Basehor, aged 53, died suddenly March 19. He was a graduate of the University of Kansas, Lawrence and Rosedale, and was also a druggist. Had just moved from Wyandotte County.

McFARLANE, Marysville, aged 84, died of uraemic poisoning.

JAMES B. MERCER, Kansas City, aged 50, died March 17, from cerebral hemorrhage. He was a graduate of Medico-Chirurgical College of Kansas City, 1905.

JAMES EDWARD MUIR, Pawnee Rock, aged 52, died of brain tumor, March 12. He was a graduate of the University of Louisville, Louisville, Ky., 1894, and a member of the Kansas Medical Society.

WILLIAM ORR, Ringo. (No data.)

HENRY W. ROBY, Topeka, aged 76, a graduate of Hahnemann Medical College, Chicago, 1877, died at his home Aug. 22. He was a Civil War veteran, a former court reporter at Kenosha and Milwaukee, Wis., and a member of the staff of Christ's Hospital.

WILLIAM SCHEIDER SHIRK, McPherson, aged 42, died Jan. 29, from cerebral hemorrhage. He was graduated from Barnes Medical College, St. Louis, in 1901, but was not in active practice and was not a member of the Society.

ROBERT F. SLAUGHTER, Tonganoxie, aged 62, died March 27. He was a graduate of the Kansas City Medical College, and the University of Kansas, and a member of the Leavenworth County Medical Society. He practiced in Tonganoxie 38 years, and was formerly house physician at St. Joseph's Hospital, Kansas City, Mo.

JOHN WILSON SPARKS, Arkansas City, aged 79, died Jan. 3. He was a graduate of the Rush Medical College in 1871. He was retired, but was an honorary member of the Cowley County Medical Society, having been the first president of the same. He had been twice mayor of his city, and one of the leaders in his community for a long period.

CHARLES STUART WALL, Wakeeney, aged 68, licensed Kansas 1901, died April 13, 1920, from valvular heart disease.

CHARLES W. WINSLOW, Oakley, aged 66, died Feb. 18, from pernicious anemia. He graduated from Ensworth Medical College, St. Joseph, Mo., in 1889. He was a member of the Tri-County and Kansas Medical Societies.

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Can Standards of Diagnosis and Treatment of Early Pulmonary Tuberculosis be Established

C. S. KENNEY, Norton

Read before the Kansas Medical Society at Hutchinson, Kansas, May, 1920.

After observing the various phases of the tuberculosis problem for a number of years—first as a general practitioner in a rural Kansas community, and later from an institutional standpoint—I feel constrained to present this paper before this body, not, however, with the intention of in any way adding to or illuminating the general information on the subject, but rather in the hopes of bringing out a frank, fearless, clean-cut discussion of this most perplexing question—the recognition and proper treatment of early pulmonary tuberculosis.

Tuberculosis is one of, if not the most, prevalent of the infectious diseases. It is essentially a child's disease, as fully 90% of all cases become infected before reaching 17 years of age. Unfortunately it is one of the most subtle of the infectious diseases. The tubercle bacilli are slow growing and disturb but little the person infected. They easily adapt themselves to their new environment and show little tendency to destroy their host. The host adapts his tissues to the invader and together

they constitute for years a symbiotic pair. The disease on this account is always more or less chronic; marked symptoms with death resulting only upon the advent of other pathogenic organisms. The waxy capsule of the tubercle bacillus enables it to resist, to a great extent, phagocytosis; hence, nature in combating this particular organism, does so by treating it as a foreign body, throwing around it fibrous connective tissue, and thus walling it in. In the combat between the bacillus on one side and the defensive forces of the body on the other, the tubercle is formed.

Unlike typhoid fever and pneumonia, whose causative organisms incubate rapidly and whose onset is more or less violent; tuberculosis develops slowly, its onset is insidious with very vague and indefinite symptoms, and slight physical changes. Compared with typhoid there are probably more changes in one day than in tuberculosis in a month. The victim seldom sees any variations in his condition from day to day, but only notes that he is more or less ill, tired and inefficient as compared to six months or a year before.

It has been stated that the diagnosis of early tuberculosis can only be made by a specialist in diseases of the chest. This statement might be true if pulmonary tuberculosis were a disease limited to the lungs, the early recognition of which would depend solely on *physical* findings, but since it is an infectious disease, exhibiting definite and indefinite, general as well as local signs and symptoms, one can readily see that it is a problem for the practitioner of general medicine. As well might it be advised that every case of measles be a problem for a measles specialist. The latter disease is no more widespread than is tuberculosis.

It is doubtless true that those devoting much time to tuberculosis will be more acute in recognizing and interpreting symptoms, but it is quite evident that the burden of discovering early tuberculosis must rest with the practitioner of general medicine.

In arriving at a diagnosis we must ignore the specialist's side of the question; we must also forget that it has been considered a disease of the chest. We should treat it as a general infectious disease whose focus is first the peribronchial glands. Later, when these barriers,

on first lines of defense, are broken down, the lung is attacked. We are then, as a matter of fact, dealing with a sick person and not merely inspecting a pair of lungs. Why then is it not rational to approach the patient with the same methods and technique found useful if he were suffering from any other infectious disease, wherein the diagnosis is made after careful history-taking, inspection of the patient, physical examination, analysis of symptoms, and other means of diagnosis are utilized. It is true, there is a tendency on the part of many people to resent the diagnosis, tuberculosis. Some fear the disease. This is due probably to a mistaken idea of our forefathers, that it is both hereditary and incurable. This public resentment and fear, no doubt, influences some physicians and they hesitate to tell the patients their honest opinions. On the other hand, the disease progresses so slowly that there are plenty of chances for the diagnosis to be questioned, before the serious symptoms are manifest, and there can be no further possibility of error. Criticism from both laymen and physicians no doubt, deters many physicians from stating the diagnosis. As a matter of fact, years as a rule elapse between the onset and termination of the disease, but this must not restrain the physician from holding to his conviction. He should make and state his diagnosis in the presence of certain symptoms and signs, even though it may be disputed for years.

If it be essential to make an early diagnosis

in order to obtain the best results in diphtheria, appendicitis, syphilis and cancer, it certainly is even more so in tuberculosis. In cancer and syphilis there are certain early signs and symptoms that point, at least, to a presumptive diagnosis of the given malady. Given a suspicious primary sore, followed by a sore throat and an eruption, syphilis is probable. If at 35 this patient succumbs to a cerebral hemorrhage or cerebral softening, so called, the laymen, as well as the profession, believe the death to be due directly to syphilis. On the other hand, certain vague symptoms, such as tired feeling, more marked in the morning, hoarseness, slow loss of weight, a "finiky", capricious appetite, an irritability, chest pains, etc., should lead to a probable diagnosis of tuberculosis, but it is difficult for the layman to attribute the consumptive death by pulmonary hemorrhage or necrosis (softening) fifteen years later, to such mild primary symptoms. It is true the causative organism of syphilis can be found in the initial lesion and the diagnosis made. The organism of tuberculosis could likewise be found if the lesion were as available for examination.

Tuberculosis like other infections, has certain fairly constant symptoms. To insure the best results from treatment, the diagnosis must be made before there is much destruction of the invaded tissues or marked toxemia. These early signs must be not only recognized but interpreted

Pottenger uses the following classification of symptoms:

Symptoms due to the disease process per se:

Frequent and protracted colds.
Spitting of blood.
Pleurisy.
Sputum.
Rise in evening temperature.

Symptoms due to reflex causes:

Hoarseness.
Tickling in the larynx.
Cough or clearing of throat.
Digestive disturbances.
Loss of weight.
Circulatory disturbances.
Chest and shoulder pains.
Flushing of face.
Apparent anemia.

Symptoms due to toxemia:

Malaise.
Feeling of being run down.
Finicky appetite.
Lack of endurance.
Loss of strength.
Nervous instability.
Digestive disturbances.
Loss of weight.
Increased pulse rate.
Sweating.
Rise in temperature.
Blood changes.

ed. It is true, due to the slow, insidious onset, they are not pronounced, yet they are present.

The following order of examination is suggested:

1. History.
2. Symptoms (subjective and objective.)
3. Inspection.
4. Palpation.
5. Percussion.
6. Auscultation.
7. Laboratory Aids.
 - (a) Microscopic.
 - (b) Blood.
 - (c) Fixation.
 - (d) Tuberculin tests.
 - (e) X-Ray.

History. In getting the history, be thorough. Ascertain if there has been an opportunity for infection, and whether or not the patient from 10 to 20 was robust or of the thin, delicate type. Inquire into the health of family. Is there any tuberculosis, asthma, neurasthenia, etc.?

The fact that there is no direct history of contact does not preclude the possibility of infection, because the disease is not only very prevalent among people but among the domestic animals as well.

Symptoms. Inquire especially if he has been susceptible to colds and lagrippe; if he has had pneumonia or pleurisy; if his indisposition followed an acute illness, such as measles, whooping cough, pneumonia, lagrippe, etc.; if he has indigestion or a finiky, capricious appetite. Is he nervous and irritable? Is he weak? Is he tired especially upon arising in the morning? Is he substandard? Is his endurance equal to that of well people of like age? Does he have a delicate, hacking cough? Does he raise sputum? (This or any other one symptom, however, may be absent.) When all the symptoms mentioned are present, the case has passed the early stage.

Ascertain when he last felt perfectly well. Is there any rise in the evening temperature? If in doubt, it should be taken, four times daily, together with the pulse, over a period of a week. If it be subnormal in the morning and normal in the afternoon, or if it reaches 99 to

99.6 some time during the day, it is very suggestive of tuberculosis. The pulse may be slow, but, as a rule, should it persist over 84, be on guard, unless this variation can be traced to a focal infection, or hyperthyroidism.

Is there a fistula in ano? If so, the lungs are probably also infected. Ascertain the cause of neurasthenic symptoms.

Is there a history of pleurisy? Idiopathic pleurisy is almost always tuberculous. Has the patient raised or spat blood? A pulmonary hemorrhage should be considered of tuberculous origin until the contrary is proven. Determine the cause of a gradual loss of weight. A person in health should not lose weight. Every youth or adult showing a gradual loss of weight in the absence of diabetes or exophthalmic goitre should be suspected of having tuberculosis. The above signs are almost pathognomonic.

Inspection. Before beginning the physical examination, strip the patient to the waist. Note the shape of the chest. Is it flat, round barrel or funnel shaped? Is he pigeon breasted? There is not, however, any shaped chest typical of tuberculosis. Are there any depressed or bulging areas? Note the excursion of the chest wall during respiration. Does either side "lag" or "hold"? Is the capillary circulation good? Is there kyphosis or scoliosis? Are the shoulders rounded, and the scapulae winged? Small delicate children showing these symptoms, with a venous congestion of the chest, and D'Espine's sign offer presumptive proof of tuberculosis of the peribronchial glands. Is there any rigidity or flabbiness of the muscles? Tuberculous is an infection, with a low grade of inflammation; hence, if active, there will be "lagging", "holding" and rigidity of the muscles over the involved areas. In old cases these rigid muscles relax, become flabby, and atrophy. Is the neck long and lean? Are the eyes bright and the sclera white? Is the face pinched or cheeks flushed? Is the skin pale, yellow or brownish in color?

Every girl or young woman with chloro-anemic symptoms who does not have a genuine chlorosis, chronic nephritis, or syphilitic anemia should be suspected of having tuberculosis.

With this data at hand a presumptive diagnosis can be made without further examination.

If the contention that pulmonary tuberculosis is a *clinical* disease capable of being diagnosed by *clinical* means is correct, further signs elicited by other methods are merely confirmatory. Pottinger says, in "Symptoms of Visceral Disease": "Nothing at our command will detect clinical tuberculosis as early as careful study and examination of the patient and the evident departures from normal physiologic function which he manifests; while dependence on the laboratory will often postpone diagnosis until the chances for cure are greatly reduced."

Auscultation. This is one of the most important methods of examining the lungs. By it abnormal sounds may be readily detected. One should familiarize himself with the normal breath sounds. Determine the tracheal note over the trachea; the bronchial murmur over the sternum, down to the third intercostal spaces in front and between the seventh cervical and fourth dorsal vertebrae behind; the bronchovesicular murmur at the side of sternum and down to the second costal cartilage anteriorly and between the scapulae down to the third dorsal vertebrae posteriorly; the vesicular sounds at the apices, the axillary regions laterally and over the bases of the lungs. The ratio of inspiration to expiration is about three to one, but expiration is slightly prolonged and higher pitched in the right than in the left apex. Note any alterations of this ratio. If the inspiratory murmur is rough or the expiratory prolonged it signifies an infiltration.

Note carefully any adventitious sounds, such as harsh, feeble or localized "jerky", "wavy" or "cogwheel" breathing. These are significant. Determine if there are any areas where the sounds are absent. Note if there are any dry, hissing moist or mucous rales. Rales that persist after "expiration and cough" are very significant especially if heard in the apex. Applicants with persistent rales were not accepted for military service. They are usually due to tuberculosis. Marginal sounds, resembling rales, heard in the midaxillary region, may usually be ignored. Rales in the base are often nontuberculous. These points must be borne in mind.

If, when the patient is asked to whisper with the stethoscope placed over various portions of the chest, sounds are transmitted to the ear, it is safe to infer that consolidated areas are present;

if the articulate voice is transmitted, it is a sign of cavity.

Bacteriological Examination. Too much stress has been laid on finding the bacilli in the sputum, and while it should be examined, yet failure to find the germs is not proof they do not exist, even in the specimen, and certainly it does not mean the patient does not have the disease. It only indicates the examiner failed to find them in the specimen submitted. When the bacilli are found, together with broken down connective tissue, it can positively be said the patient has tuberculosis; but when so found the patient is no longer in the incipient stage, hence the prognosis is not so good. Some observers have said: "We no longer make sputum analysis for diagnostic purposes, but rather to assist in making a prognosis"; therefore the diagnosis should be made long before the sputum is positive.

We have in mind one case now that recalled his application for admission after receiving a negative sputum report from the state laboratory. He felt this was authoritative evidence that he was non-tuberculous, but we were able to convince him that such negative report did not exclude tuberculosis. He is now taking treatment, and is classed as a moderately advanced type.

The blood picture in early tuberculosis is negative. The complement fixation test has not shown great worth, due probably to the difficulty of obtaining a good antigen.

Tuberculin Tests. The tuberculin reaction merely shows that the patient is suffering, or recently has suffered, from tuberculosis, and still has free antibodies. As most adults react, it is therefore a more valuable sign in children and the young. When present in children under 5 years of age it is a most significant sign.

X-Ray Examinations. The x-ray is valuable for determining infiltrated areas, cavities, hilus infiltration, condition of lymph nodes, excursion of the diaphragm, etc., hence is an aid to, but should not take the place of, the other well known methods of examination. It is not especially valuable in the incipient stage, and is valueless in settling any question as to activity or latency of lesions.

The laboratory can show nothing early; the x-ray has its limitations; even the stethoscope

may not be dependable in the truly early case; but a clinical picture can still be built up, by care, that will be sufficient for a tentative diagnosis. A few symptoms such as "tired, punched out feeling," especially in the morning, following a good night's rest, a "finicky", capricious appetite, an irritability, loss of weight, and lack of ambition are symptoms that should not be overlooked. To make a diagnosis of early tuberculosis we must depend upon clinical manifestations. Standards of diagnosis of beginning tuberculosis can be established. When five or more of the above symptoms, especially the tired feeling, irritability, "finicky" appetite are present, tuberculosis is probable.

The more I study the cases sent to the Institution at Norton, the more convinced I am that the average case of tuberculosis is badly treated. Perhaps the patient is to blame--often he is, but I have also reached the conclusion that some of this poor advice and ill treatment should be charged to neglect by our own profession.

It is somewhat easier to standardize the treatment of tuberculosis. Up to the present time no drug, serum, vaccine, appliance or means has been devised to successfully combat tuberculosis, except as will be mentioned later. There has been no uniformity in the treatment of this disease. In diphtheria, typhoid, pneumonia, tetanus, smallpox, etc., the profession is almost a unit in the care of and treatment of the patient. In tuberculosis, the advice given is varied, vague and indefinite. Everything in drugs, climate, altitude, Christian Science, vaccines, occupational change and hard work have been tried. There seems to be no fixed purpose or definite plan generally in vogue. In marked contrast to this vacillating attitude all sanatoria and tuberculosis agencies are agreed that fresh air, rest, a liberal mixed diet and as happy and optimistic state of mind of the patient as possible are essential. It is a slow wasting disease, hence the necessity for rest appears obvious. It is prescribed in all other infectious diseases; why, then, should it be denied to the tuberculous? Fresh air means living as much as possible in the open, but does not signify exercising in the open. A large per cent of people have been erroneously

taught that there is virtue in certain climates until it is a fixed idea. Therefore, when informed they have tuberculosis they immediately plan a trip to the west, south or southwest with the false hopes that the climate will restore health. Here again we physicians are not blameless, because we are not making a concerted effort to counteract this erroneous impression. In fact, a change of climate even yet is advised by some Kansas physicians, notwithstanding there is ample proof that results from proper treatment are as good in one climate as in another. In fact, it is not *where*, as much as *how* the patient lives, and I, indeed, feel sorry for any patient that is advised to leave home and friends to go into unknown climes following that "will-o'-the-wisp", climate. We do not send a case of typhoid fever to Colorado or New Mexico. Is there a valid reason for sending one suffering from tuberculosis?

Nourishing the tuberculous is one of the important factors in the treatment, but owing to the fact that all sufferers have some form of digestive disturbance, it is one of the most difficult and perplexing problems. The diet must, however, be varied and highly nutritious, but there should be no forced feeding. He should be encouraged to eat plenty of the most nutritious foods, with the understanding that the results will not depend upon the amount ingested but upon the amount assimilated. The diet should be well considered from the caloric standpoint, but the vitamin content of the food should be high. Fresh milk and milk products, meats, fruits, vegetables and eggs should be used freely. Butter should be used instead of butter substitutes.

Tuberculosis always disturbs the mental and nervous equilibrium of the patient causing much distress. This is a factor in the treatment that is often, but should never be overlooked. Each patient should be carefully studied and a proper mental attitude obtained if possible. He must submit cheerfully to a long drawn out treatment with a spirit of hopefulness, determined to meet the ups and downs uncomplainingly.

The various symptoms may be corrected by the exhibition of the indicated means at our disposal, but those methods described above

are the accepted and most efficient. They should be generally used in all cases, preferably, of course, in an institution, but they are at the disposal of any physician and can be used in any climate, in any season, and at any and all times. If properly carried out our death rate from tuberculosis could be materially reduced.

Our conclusion, then, is that standards for the diagnosis of early pulmonary tuberculosis can be established. Five or more such symptoms as tired feeling, especially in the morning, irritability, loss of weight, finicky appetite, hoarseness, clearing of the throat or hacking cough, apparent anemia, vague chest pains or pleurisy in the physically substandard, should establish a presumptive diagnosis, and demand that the case be treated as tuberculous until the contrary is proven or he recovers.

The standards of treatment are more definite. No one can err in putting a tuberculous or suspected tuberculous individual at rest in bed, in the open air, supplying him with wholesome food, and urging him to make his fight good naturedly.

As the advance of standards in the diagnosis and treatment of gonorrhoea and syphilis has rendered increasingly rare the occurrence of severe strictures and saddlenoses, so will the general adoption of standards in the field of early tuberculosis cause a decrease in the number of advanced and dying consumptives with which the Kansas physicians of the next decade will have to cope.

Standards for the diagnosis and treatment can and should be maintained.

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Occlusion of the Superior Mesenteric Vessels

By R. H. HERTZLER, M. D., Newton

Read before the Kansas Medical Society at Wichita, Kansas, April, 1921

In view of the fact that embolism and thrombosis of the mesenteric vessels is comparatively rare, and in view of the fact that no really comprehensive article, particularly in the English language, has appeared, and because it gives a disease picture very difficult or impossible of clinical diagnosis, I enter upon the brief

discussion of this subject with some misgivings. I appreciate that some will question my diagnosis, especially when you learn that both of the cases I wish to report have recovered and are living today. However, when we consider that, according to clinical reports on file in various places, cases of embolism and thrombosis of the mesenteric vessels do recover; when we learn that a case reported by Robson in the *British Medical Journal* of 1897, and another by Roughton, reported in the *Lancet* in 1899, both traumatic injuries, one to the superior mesenteric vein, the other to one of the vasa intestini tenuis arteries, both of which were ligated with complete recovery; and when we find that four cases from the "Autopsy Reports of the Johns Hopkins Hospital" had hemorrhagic infarction of the intestines without being suspected in life, my cases seem very easily probable.

In the clinical and operative study of my cases it was impossible to differentiate between embolism or thrombosis; further, it was impossible to know whether the artery or the vein or both were occluded. So rather I would head my article "Occlusion of the Superior Mesenteric Vessels", and not try and be as specific in diagnosis as the subject, as printed in the program, would insinuate.

Case 1. Mrs. W. entered Bethel Hospital, Jan. 13, 1920, complaining of severe abdominal pain and persistent vomiting. The patient is a young woman, age 26, married, and has a three months old baby. I elicited a history of an acute abdominal pain, beginning in the epigastrium, about sixty hours before and continuing, more or less severe, up until the present time. The pain was almost immediately followed by vomiting which persisted with great severity; in twenty-four hours she was vomiting fecal material. She was still vomiting fecal matter on entering the hospital.

Patient shows that she has been in good health, but now gives evidence of prostration; pulse is 125 and weak; temperature is 98.1 degrees Fahrenheit and later followed by a slight increase. Her physician tells me that it has been subnormal. There is some little distention; a distinct tenderness over the epigastrium and in left iliac region; no evidence of a general peritonitis.

Leucocytes 23,000 with polymorphonuclears 81%.

Urine cloudy, color brownish, specific gravity 1035, reaction acid, no blood, marked trace of albumin, bile, indican in large amount, a few hyaline casts and many leucocytes.

Preoperative diagnosis of intestinal obstruction, probably volvulus, was made.

Operation. A median incision was made. Large amount of sanguinous fluid escaped in which floated many flocculi of lymph. Stomach, small intestine and colon up to the sigmoid flexure were distended. Appendix was acutely inflamed and markedly adherent. Appendectomy. Gall bladder was small, texture apparently normal to the touch, but full of small stones. Stomach and duodenum were normal except for the distention. Uterus and tubes normal.

The splenic end of the transverse colon, for a length of about five inches was indurated and firm, very dark brownish in color, and covered with flocculi of inflammation. This portion of the bowel was not perceptibly enlarged but the walls seemed very thick. To the touch it did not give the sensation of actual hardness, but rather that of an edema and swelling, yielding under the fingers when pressed upon. Upon the surface of the peritoneal covering were several spots of beginning necrosis. The vessels leading to this area of bowel were found to be occluded.

The patient was in bad condition and further operative risk was considered too great for resection. Colostomy was done and the patient sent back to bed.

Case 2. On Jan. 31, 1921, I was called to a neighboring city to operate on a case of ruptured appendix. I found a woman age 40, who two days previous to my visit was awakened suddenly from a sound sleep at five o'clock in the morning with a sudden, acute pain in the abdomen. She tells me that her pain was most severe in the right iliac region. She was evidently at this time in great pain; she was moaning, very restless, and it was almost impossible to turn her to a more advantageous position for examination because of the great distress that any movement occasioned. Her face was flushed and very drawn and pinched. Vomiting had started almost immediately after

the onset but had ceased entirely in the last twenty-four hours. At this time her temperature was 100.4 degrees Fahrenheit, pulse 100. The family physician had recorded a normal temperature and a pulse around 80 previous to this visit.

Palpation of the abdomen indicated no particular findings because of the very marked distention and the general distribution of the pain. She gave a history of having some "stomach trouble" for years.

The time of the initial symptom, 5 A. M., is interesting, as this is the time when the circulation is at its lowest ebb; this is also a favorite time for perforation of gastric and duodenal ulcer to occur.

No preoperative diagnosis was made, although perforated ulcer of two days standing, and ruptured appendix were ruled out. She was given morphine sulphate gr. $\frac{1}{4}$ hypodermically, and conveyed to a hospital.

Laparotomy was done. Much sero-sanguinous fluid escaped. No stomach or bowel contents were discovered in the fluid. Stomach, duodenum, gall bladder, appendix, uterus and tubes were normal. The large bowel was greatly distended but at no place was it abnormal in appearance or feel. Turning back the transverse colon we discovered that the vessels leading to the bowel were greatly enlarged, hard and knotty, thrombosed. The mesentery was angry red, highly hyperemic, and extravasation of blood between the layers of the mesentery had occurred. There was even some oozing of blood into the peritoneal cavity.

Virchow, in 1847, was the first to offer any pathology. A little later, in 1875, Litten (Deutsche med. Wochenschrift, No. 8, 1899), published the first case of thrombosis of the superior mesenteric artery, and gave us the clinical picture together with a newer theory regarding the etiology. Cohnheim declared, that, in cases of hemorrhagic infarction in the intestinal wall from occlusion of the mesenteric vessels, not only the main stem was shut off, but that also the small anastomosing vessels were occluded by metastatic emboli being thrown off from the parent embolus. Litten then concluded that the superior mesenteric artery is a "functional endartery", and goes on to prove that the formation of a mesenteric

collateral circulation required a higher blood pressure than the blood of the body can reach. Faber explains that, in spite of the open collateral circulation of the artery, the pressure in the corresponding superior mesenteric vein immediately drops to nothing, the infarction then being due to back pressure of blood in the portal system, which pressure is greater than the pressure in the anastomosing vessels. The formation of effective collateral circulation is further compromised by the violent contractile efforts of the affected bowel for several hours after the initiation of the occlusion.

It is shown then, that closure of the mesenteric vessels does not, as a rule, cause competent collateral circulation to be established, in spite of their rich anatomic anastomosis.

There are exceptions to this rule, however. A few cases are found in which post-mortem examination showed that collateral circulation had been formed. A case reported by Virchow in his Archives demonstrated that collateral circulation was established by branches of the pancreatoduodenalis and inferior mesenteric arteries. In one case of Kaufmann's the ileocolic artery was occluded, but that portion of the colon supplied was unaffected.

Ribbert, in his "Allgemeinen Pathologie", says that "occlusion of the superior mesenteric artery always causes hemorrhagic infarction." "To be sure, there are present anastomoses with other vessels, but these do not suffice for nutrition." The bowel then becomes paler than the surrounding areas. "In other cases," he continues, "either of endartery or of insufficient arterial anastomosis, the afflux of small quantities of blood continues, either from the narrow arterial anastomosis or from the capillaries or veins. The area then remains red. Microscopically the vessels are turgid, but with no motion of their contents worth mentioning; or often complete stasis occurs. But we soon see something more. We see in the experiment that the blood corpuscles leave the vessels by diapedesis reaching the surrounding tissues, the spaces of which they fill. Then the area takes on a dark, black-red color, and a firm consistency. A hemorrhagic infarct has occurred, which does not grow pale, but preserves its red color."

Etiology. Litten describes a "gitterformige",

lattice work, endarteritis. This tends to thrombus formation; the thrombus is naturally white since it forms slowly from the blood stream. He states that it is characteristic of this form of endarteritis that in only certain spots it involves the entire circumference of an otherwise healthy vessel, while in the endarteritis as generally understood the process is multiple and spreads over large areas.

Local diseases of the vessel walls, as in syphilis, or any process which might roughen the intima or constrict the lumen of the vessel, as atheroma and arteriosclerosis; any and all diseases leading to the formation of thrombi from which emboli can start; severe infections of the intestines, enteritides, surgical infections, post-partum infection; debilitating diseases, as cancer, typhoid and so forth; all conditions causing stasis in the portal circulation, may give rise to occlusion of the superior mesenteric vessels.

Pain. The pain is usually general in character and therefore not significant. Occasionally it is absent entirely. It is usually sudden in onset, although as in one of my cases, preceded by several days of gastric uneasiness; and it is intermittent in character, sometimes dull, at other times colicky. It is supposed to be due to intestinal contraction, although Schnitzler maintains that the pain is due to an ischemia.

Nausea and Vomiting. This usually follows the pain. Sometimes it is entirely absent. Be the case severe and of long duration the vomitus may contain normal stomach contents, bile, fecal matter and blood.

Bowels. Some authors claim bloody stools necessary to a diagnosis. I should say that a bloody stool would only be presumptive evidence, as it may occur in other acute abdominal conditions. Jackson's data informs us that 41% of the cases have blood in the stools at one time or another.

Distension. A true paralytic ileus due to improper nutrition occurs in the majority of cases. Following the stasis occurs the distension from the gases of decomposition. It is just a step to complete intestinal obstruction, accompanied by reverse peristalsis and fecal vomiting. Intestinal obstruction occurs early in some cases; in others somewhat later, and

the ileus is then possibly partially due to the ensuing peritonitis.

Diagnosis. I question whether the diagnosis can be made with any degree of certainty. There does not seem to be any one symptom, nor any group of symptoms that is even suggestive. The condition can easily be confounded with other cases of intestinal paralysis, as those due to mechanical obstruction, intussusception, volvulus, strangulation by bands or obstruction by neoplasms. Gastric and duodenal ulcer must be differentiated.

Prognosis. The chances of recovery are slight, although by no means is the disease always fatal. Jackson reports a mortality of 94%, "granting the diagnosis to be correct in all reported cases."

Treatment. Operation seems to offer the only hope. We are confronted with an acute abdomen which we are unable to diagnose, or if we do, the diagnosis is very probably incorrect. Mature experience teaches that an acute abdominal crisis is sufficient indication for laparotomy.

—————R—————

POST GRADUATE COURSE IN MEDICINE

**Offered in the University of Kansas
Medical School at Rosedale from
June 13th to July 23d, 1921**

Clinical and General Pathology.
Dr. H. R. Wahl.

Open to physicians only.

This as a practical laboratory course, designed to meet the needs of the general practitioner and others who desire acquaintance with modern methods of laboratory diagnosis, who seek information on the significance, value and interpretation of these laboratory procedures and who desire to know how far they can be adapted to their own office practice. The Course consists of demonstrations, laboratory work, conferences and explanatory lectures.

The following are some of the subjects to be discussed:

Practical points in urine analysis.
Examination of feces.
Gastric analysis.

Examination of spinal fluids.

Examination of sputum and urine for tubercle bacilli.

Examination of urethral, vaginal and pharyngeal smears.

Determination of types of pneumococci.

Blood sugar in diabetes.

Basal metabolism.

Kidney function tests.

Value of blood chemistry in diagnosis and prognosis.

Autopsy technic.

Technic of rapid tissue diagnosis with the use of the freezing microtome.

Schick test.

Transfusion and the grouping of bloods.

Interpretation of the Wassermann reaction.

Blood examination. Differential counting.

Anemias. Leukemias.

Vaccine and serum therapy.

Demonstration of the value of correlating the clinical picture with the postmortum findings.

The course will occupy two hours each morning five days in the week for six weeks beginning June 13th. It will be so arranged that a physician may enter any week and leave at any time. University credit of 1 to 6 hours will be given according to the time put in and the work done.

While the course requires two hours work a day, additional time may be put in in the laboratory, the pathological museum and slide collection being accessible to those enrolled in the class. In this way tumors of many types may be studied.

In addition one or more clinics will be held daily in the Bell Memorial Hospital by Drs. Curran, Sudler, Bohan, Murphy, Orr, Ockerblad and other members of the hospital staff and dispensary. The dispensary where an average of sixty to seventy patients are treated daily will be available for those who desire to see more clinical material.

The fee will be the usual Summer Session fee of the University which is \$10 and an additional laboratory and microscope fee of \$3.

Inquiries should be made to the Dean of the Medical School.

Course is limited to twenty.

LAW FOR THE DOCTOR

LESLIE CHILDS

Liability of Surgeon for Applying Extraordinary Remedy in Desperate Case

(Copyright 1919, by Leslie Childs)

If, after an operation, the patient's hopes have not been fulfilled, the most likely person in the world to blame is the surgeon; and if in the conduct of the operation or the after treatment there has been even a slight deviation from the usual practice in like cases, this, coupled with a failure to improve, is frequently about all that is required to convince a certain class of patients that they have been grossly abused.

Given a case of this kind a skillful attorney, assisted perhaps by the imagination of his client, will draw a seemingly good complaint upon the absolute minimum of fact, and if this is supported by the slightest evidence, will in most cases get to the jury. Fortunately there is limit to this sort of thing and, once in a while, the mistaken belief upon which the action was predicated becomes so apparent in the trial that the court is forced to give a peremptory instruction for the defendant doctor. Such a case was that of *Miller vs. Toles*, 183 Mich. 252, the facts being substantially as follows:

The plaintiff, Miller, suffered an injury to his ankle, caused by a fall from a scaffold August 24, 1909. Doctor Tooker was called, pronounced the injury a bad sprain, and prescribed a liniment which was used some three or four weeks. He treated the plaintiff during the fall of 1909 and winter of 1909-10, but without success.

In the spring of 1910 plaintiff consulted Doctor Hagadorn, who took an x-ray of the injured member and prescribed for same, using iodine, which was applied externally. The ankle failed to respond to this treatment so in June, 1910, the plaintiff called Doctor Nottingham who, also, took an x-ray and placed the injured ankle in a plaster cast which was worn about two weeks. After this a second plaster cast was placed on, the same being worn about three weeks. The ankle did not improve.

Plaintiff next consulted Doctor Gordon, who

treated the injured member with a hot solution and bandaged it. This brought no relief and on November 19, 1910, Doctor Gordon advised the plaintiff that his case was one which demanded surgical treatment. Doctor Toles, the defendant, was thereupon called into consultation.

After an examination Doctor Toles determined to attempt to save the plaintiff's foot and ankle by the use of the "Murphy Treatment." At the time of this consultation Doctor Gordon expressed the opinion that amputation was necessary. Dr. Toles did not promise anything from the treatment but seemingly gave it as a last resort.

The first injection was given November 20, the second December 3, and the third December 30, 1910. After each injection plaintiff suffered severe pain which lasted from one to three days, requiring the administration of opiates for its relief.

No noticeable improvement followed and on February 14, 1911, it was decided to undertake an exploratory operation. This was done, and the bones on the inside of the ankle were laid bare for examination. The result of this operation, nor the treatment which followed, appears in the report; but the ankle did not improve and on August 7, 1912, about eighteen months after the exploratory operation, the plaintiff's condition became so serious that it was decided to amputate the foot. This was accordingly done.

Later the plaintiff brought an action against Doctor Toles, the defendant, charging him with malpractice in the following particulars:

"(1) In administering the injections which he describes as an experimental remedy; (2) in failing to relieve plaintiff's pain after the administration of the several injections; (3) in carelessly and negligently conducting the exploratory operation in such a manner as to cut the muscles and tendons on the inside of the injured ankle, and in failing to support them properly after the operation. * * *"

At the conclusion of the plaintiff's evidence the trial court directed a verdict for the defendant for the reason that there was no evidence tending to show that the treatment given by the defendant in any way caused the loss of plaintiff's foot. From this directed verdict

the plaintiff appealed. The Supreme Court, in passing on the record, had this to say:

"* * * It is obvious from an examination of this record that at the time Doctor Toles was called plaintiff's ankle was in an extremely serious condition. It was in such a condition as, in the opinion of his attending physician, demanded amputation. Under these circumstances defendant tried a remedy which appears to have been known and approved by the profession, though perhaps not generally, and which in some instances of diseased joints had achieved remarkable results.

"It is apparent from the testimony of Doctor Gordon, the plaintiff's own witness, that a favorable result from such treatment was scarcely to be expected; at most, it could only be hoped for. Inasmuch as the only alternative at that time was immediate amputation, it would, in our opinion, be a strange application of the law which would hold the defendant responsible for its failure. In treating a broken or diseased limb, the implied contract between the surgeon and patient is not to restore it to its natural condition, but to use that degree of diligence and skill which is ordinarily possessed by the average of the members of the profession in similar localities, giving due consideration to the state of the art at the time. * * *

"We are of the opinion that the circuit judge properly directed a verdict for defendant, and the judgment will stand affirmed."

—R—

Deaths

Dr. George Emmerson, age 73, died at Winfield, Kansas, Apr. 10th. Dr. Emmerson was an honorary member of the Cowley County and State Societies and took an active interest in the progress of the profession at all times. He was the pioneer in abdominal surgery in Kansas and did the first laparotomy in the State. For many years he was the leading surgeon of Southwestern Kansas. He was a graduate of the Albany Medical College, Albany, N. Y., 1873. He was actively engaged in the practice of his profession up to the last few months, when a partial blindness caused him to retire.

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Mervin T. Sudler, M. D.

CANCER OF THE BREAST

The patient whom we are considering today is forty-nine years of age. She has known for ten years that there was a small lump in her breast. About six months ago, its character began to change and in the last four months it has grown quite rapidly, but painlessly. Finally becoming alarmed, she has presented herself for medical care and treatment.

Examination reveals a well-nourished and otherwise normal woman for her age. There is a definite hard lump in her right breast, involving the upper and outer right quadrant. More than half (fifty-eight per cent) of all cancers of the breast occur in this location. This lump is not movable, but is attached to the tissues and skin. The nipple is not retracted. Examination discloses the axillary glands on this side larger than those on the opposite. Two glands at the outer edge of the pectoralis major muscle can be definitely palpated, as can some of those higher in the axilla. The character of the growth, the numerous enlarged lymphatic glands, and the age of the patient make the diagnosis clear. In this case, a frozen section is unnecessary for diagnosis, though the tissue will be handed to the pathologist as soon as removed. The diagnosis is cancer of the breast and the radical removal of the breast and lymphatic glands is recommended.

In this particular instance, the operation is done by making an incision starting from the point of insertion of the pectoralis major muscle, saving considerable skin on the median side of the breast and making a rather wide elliptical incision under the axilla, well over an inch from the nearest portion of the growth. The pectoralis major is probably not involved and only the superficial portion with the pectoral fascia is removed. The fatty tissue covering the axillary artery and vein and brachial plexus is dissected loose high up under the clavicle by sharp dissection, the bleeding points near the axillary vein and artery being caught and immediately ligated for fear of tearing a hole

in the vein. This mass is then carried down and the entire breast removed; taking with it the pectoralis fascia and the superficial fibres of the pectoralis major, this being necessary to remove the entire gland, as at times portions of the gland penetrate the muscular fibres. You will notice that the contents of the axilla and the gland are removed in one piece.

An examination reveals the axillary artery and vein free and not involved. It is apparently possible to leave some fatty tissue on the sides of the artery and vein—with the lymphatic nodules evidently involved, it is not wise to leave any of the fatty fascia directly over them.

Large hot saline packs are now applied—the temperature is from 118° to 120°—to stop the oozing; then all remaining vessels are ligated and the clamps are removed. A small counter-incision is made for the rubber drainage tube for the first few hours, as there will be a large amount of fluid serum escape, though the use of hot packs reduces the amount by sealing the lymphatic vessels. The skin is drawn together with some tension by means of silk-worm gut stitches and a continuous stitch of plain catgut. The patient's condition is excellent.

The pathologist's preliminary reports is now ready. It is: Pathological diagnosis—Schirous carcinoma of the breast, with secondary metastases in the axillary glands.

Discussion of the Operation.—The modern radical operation for cancer of the breast was advocated in an article published in 1894 by Dr. W. S. Halsted. His operation consisted in the removal of both the pectoralis major and the pectoralis minor muscles and a very painstaking and minute dissection of the axilla. If necessary, the dissection was taken into the neck above the clavicle. This dissection was begun at the farthest distance from the axillary vessels and took a long time to complete. The operation has been improved very greatly by beginning the operation in the axilla and dissecting downward, taking the axillary fat with the contained lymphatics and the breast all in one mass. In regard to the removal of the clavicular portion of the pectoralis major muscle and the pectoralis minor muscle: Halsted was very emphatic that this was necessary

and the majority of surgeons and textbooks follow his teaching. However, there has been considerable recent discussion of this point and there are men like Crile who have very large experience, who believe that in the early cases the muscles can be saved without danger. Recurrences while theoretically possible from the arrangement of the lymphatics, very rarely occur in the muscle but are almost always local in the incision, or in the lymphatics, either axillary or supraclavicular, with recurrence in the latter predominating. Though the removal of the muscle causes astonishingly little interference with the use of the arm, it does to some extent; so, it is preferable to leave the muscle unless the disease is extensive and involvement is likely. If the clavicular portion of the pectoralis major muscle or the entire pectoralis major muscle be removed, it is not advisable to leave the pectoralis minor. The pectoralis fascia should always be removed. If the vessels be stripped clean of connective tissue and fat, the arm is more apt to swell from cicatricial contraction than if sharp dissection be used and a thin layer of fatty tissue be left, particularly above and below. However, in many cases, it is unwise to save even this thin layer of tissue and fat.

Various clever incisions have been suggested by Warren, Halsted, Jackson and others, all having for their purpose the relaxation of the skin, so as to cover the large denuded area left by the removal of the breast. But any incision must be made with due reference to a wide removal of the growth rather than the ease or completeness of the closure or appearance of the resulting scar.

The operation is seldom dangerous unless the condition of the patient be poor from co-existing disease, the primary mortality being less than one per cent.

The results of a given operation depend upon several factors, such as the age of the patient, the character of the growth, and particularly, how extensive the growth is. Dennis states that seventy per cent of cures result where no enlarged glands can be felt; that this drops to thirty per cent when the two nodes just to the outside of the pectoralis major can be felt.

Volkman established a general rule that all

cases without recurrence for three years after operation could be considered cured. This is an error, as cases have been reported recurring as late as seven years and others whose authenticity might be questioned from twelve to twenty-three years. Probably in skilful hands in this country fifty to fifty-five per cent outlive the three year period—twenty percent of these probably die of recurrence afterwards. (Rowlands and Turner.

Lactation in combination with cancer of the breast increases the danger and makes a most difficult operation, as there is very free bleeding of even the smallest vessels. Usually, the younger the patient, the more rapid the growth.

Unfortunately for the final results, most patients present themselves for operation after the cancer is well advanced. If the public could be educated upon the three following points, a great many more cures in the case of cancer of the breast would result. (1) Eighty per cent of all tumors of the breast are malignant. (2) Early Malignancy is absolutely painless. (3) The cases operated upon in the early stages of the disease show approximately seventy per cent as cured.

There is a popular fallacy, which one hears quite frequently, that "the knife spreads the disease." It has probably been fostered by the various quacks using paste in some form. Another popular notion is that all cancers are painful; and therefore, if a lump be present and it does not hurt, it is a "tumor" and not a "cancer." Some time ago, a patient presented herself at this clinic who had consulted her physician a week before for *rheumatism in her arm*. The breast was solid and the pain in the arm was due to pressure and involvement of the nerve trunks. She insisted that "a cure be guaranteed". When told that this was impossible, she decided to go to a "specialist" who could guarantee such a result. She went; and neighbors reported that her sufferings were intense from the huge amount of caustic paste used. She lived twelve weeks under this form of mediaeval torture.

The use of radium and x-rays has not been successful. Cancer of the breast metastasizes early and metastases cannot be reached by either of these forms of treatment. The x-ray has also been used in the incision left open

after the operation. The use of radium and the x-ray in recurrent or inoperable cancer is justifiable. They seem definitely to decrease the amount of pain and inhibit the growth of the superficial portions.

Cancer is one of the greatest problems of medicine today and as such is receiving the most serious study and investigation by many of the most brilliant men in medicine and in magnificently equipped laboratories. So far, their results have been painfully meagre pertaining to treatment.

Of all deaths in persons over forty years of age, one woman in eight dies of cancer and one man in ten. Cancer of the breast composes forty per cent of all cases. It is the most common in the fifth and sixth decades of life. The percentage of growths which are malignant after forty years of age is much higher than eighty per cent.

Without treatment or operation, the average length of life in cancer of the breast is 27.1 years. It also may occur in the male breast, but this is very rare. The early distribution is explained by the anatomy of the parts—the lymphatics of the breast draining into the axilla and supraclavicular group and the few through the pectoralis major. After these become blocked by the growth, then the lymphatic circulation may shift, going to the opposite breast or mediastinum. Metastases may occur almost anywhere, even in the bones far distant, in the lungs, liver, or brain, involvement of the bones and liver being not infrequent.

Diagnosis is usually easy, but cancer may be confounded with syphilis, chronic cystic mastitis, or tuberculosis. A frozen microscopical section should always be made if there is the slightest doubt.

The cause of carcinoma of the breast, as well as of other regions of the body, is not known. It occurs so frequently between the ages of 40 and 55 years in the uterus and breast that the conclusion that it is associated with the involution of those organs is unescapable. Blows, the irritation of corset stays, and other trauma have caused some, but in many other cases there is no irritation definitely traceable.

The types of growth vary—most of them come from the acini, the common types being

the schirrus with connective tissue predominating in the picture, or the medullary type with cancer cells predominating, or the adenoma-carcinoma type where the histological picture resembles somewhat the construction of the gland. The duct cancers are rare and they may be of the epithelial type. Various authors have various classifications and there are several rare types that are not mentioned.

There has been considerable discussion concerning the liability of chronic cystic mastitis degenerating into cancer. Bloodgood early claiming that fifty per cent of these growths eventually become malignant. Lately he has maintained that malignant degeneration never occurs. However, this is disputed; and certainly, in our own experience, a considerable number of breasts removed for cancer have a co-existing chronic cystic mastitis. We believe that this occurs with sufficient frequency to warrant the removal of the entire breast, in the case of cystic mastitis, if the involvement is widespread or marked.

Theoretically at least, every cancer of the breast can be completely removed if discovered early enough. Practically, at least one-half could be cured if they were operated upon by competent surgeons as soon as discovered. This information should be freely diffused by every general practitioner of medicine or nursing. The great hindrance to better results is the lack of knowledge or willingness to act early on the part of the victims. The x-ray and radium are of limited value in the operable cases, but should never be relied upon as a substitute for suitable operation.

Clinic of E. J. Curran, M. D.

DEPARTMENT OF OPHTHAMOLOGY

1. A Case of Gumma of the Skin in a Congenital Syphilitic Child.

G. H. Aged, three years, female, appeared at the eye clinic of the University of Kansas Medical School, May 3rd, 1920, with photophobia, lacrymation and injected eyes, and much pus in the conjunctival sac of the left eye. Pus could be squeezed from the left lacrymal sac. Examination of the cornea in each eye showed superficial and deep infiltration throughout and a diagnosis was made of

interstitial keratitis with dacryocystitis in the left side.

Mother, 36 years old, well. No miscarriages, four other children all well. Preg. normal, labor normal. The child was breast fed and progressed well. At two years, had pneumonia, recovery complete, whooping cough eight weeks ago, recovery complete. Apart from eyes, physical condition good.

The present condition of the eyes was noticed three weeks ago. The child was given hydrarg cum cret, gr $\frac{1}{2}$, t i d and atropin $\frac{1}{2}$ of 1%, b i d, dionin 2% and the left eye had in addition, argyrol 20% with instructions to press the pus out of the sac four times a day. This treatment was kept up with good results, until September 17th, when the left eye flared up into an acute dacryocystitis which we opened up and drained. On September 20th, the mother came back and the sac was much improved but still draining and the wound not healing well, the edges looked infiltrated. The patient did not return until April 8th, 1921. Inspection showed a large ulcer extending from the inner canthus to the center of the nose and from the glabella down the side of the nose and the cheek to the level of the middle part of the ala nasi and out as far as the malar process on the cheek bone. The floor and the edges were soft and boggy with complete destruction of the skin, and pus was still coming from the lacrymal sac from the original opening made six months before. The mother said the patient had been under treatment of some kind during the last six months, and that the ulcer began to spread from the drainage opening and continued till this time. The denuded area is now $1\frac{1}{2}$ inches by $1\frac{1}{2}$ inches in extent. Blood for Wassermann could not be obtained from the child but a specimen was taken from the mother which was 4++++. Potassium iodide grs 45 a day, yellow oxide of mercury salve applied to ulcer continuously. On September 11th, rx 606 left buttock .003 gram was injected.

April 18th. Rx .003 gram in right buttock was injected. Continue Pot. Iod. and salve.

April 22nd. Ulcer healing rapidly. Floor becoming clean and edges of skin growing.

April 28th. The healing of the ulcer is

progressing well and the treatment as outlined above is still continued.

Comments: There are three points of special interest in this case:

I. There is no doubt that this is a case of gumma of the skin in a congenital syphilitic. The interstitial keratitis and the positive Wassermann in the mother and the quick recovery under specific treatment verify this.

II. The incision into the lacrymal sac was the exciting cause of the activity in this particular region for the ulcer spread from this wound. It is well known and has been amply demonstrated in the past, that in acquired syphilis similar activity of the spirochetes takes place at the site of the trauma, but in congenital cases this has not been demonstrated so clearly.

III. The gumma began while the patient was under active treatment with mercury and shortly after the case left the clinic it progressed rapidly. What treatment was continued could not be ascertained. Quick improvement took place under Pot. Iod. and 606. It is probable that if the 606 and Pot. Iod. with the mercury had been given earlier, this extensive and disfigured gumma could have been prevented and even though one does not often meet with gumma in congenital syphilis, it is well to give the fullest treatment tolerated, including especially the Pot. Iod.

2. Sarcoma in the Sub-Conjunctival Tissue.

Patient, male, aged 50 years, a laborer, was admitted to the hospital April 1st, 1921, complaining of a lump in the left eye ball at the inner side of the cornea.

Diagnosis: Tumor, left eye, probably cystic. Examination showed that the patient could not speak English and no history could be obtained, except a doubtful one of trauma in the left eye, in the side of the tumor, in 1914.

Examination shows a mass $\frac{3}{4}$ inches in diameter under the conjunctiva, extending from the cornea to the curuncle. The conjunctiva moves freely over it in every part and it moves freely over the eye ball showing that it is not attached to the conjunctive or to the sclera. However, no attachment could be demonstrated. There were many nodules comprising this mass, ranging from the size of a pea to a pin's head. Some of the nodules seem to fluctuate,

suggesting cystic formation and a diagnosis of multiple cyst was made, which, although the center of some of the masses had become cystic, was essentially a wrong diagnosis. Microscopic examination was advised.

Operation: April 1st, 1921. Removal of tumor. Cocaine 5% was instilled and 1% injected for anaesthetic. An incision was made in the conjunctiva from the cornea to the curuncle, and the conjunctiva dissected from the tissue to which it was not adherent. The tumor was dissected from the sub-conjunctival tissue to which it was adherent, but no adhesion to the sclera could be made out. The wound was closed with three sutures.

The specimen was sent to Dr. Wahl for a pathological report which follows:

Gross Pathology: Specimen consists of two small pieces of nodular tissue, one measuring 1 cm. long and 6 mm. in diameter and having a reddish appearance. The other section is a slightly smaller piece of tissue. On cut section the tissue seems to be filled with a semi-gelatinous substance. The cut surface seems to have a homogeneous gray reddish in color. It seems to be quite cellular.

Histological Pathology: The section presents a very typical and wild irregular architecture. It is composed of a malignant tumor made up mostly of small round cells surrounded by a very scanty amount of cytoplasm. The cytoplasm is not very distinct. The tumor presents two different pictures. In one place, there seems to be a solid sheet of the tumor tissue with here and there a few small eosin staining areas indicating the place where there are a few capillaries filled with red blood cells. The tumor cells are directly upon the wall of these capillaries. The outline of these sheets of tumor cells is very irregular, and is apparently penetrating the surrounding tissue in all directions. In other places, the tumor is much more irregular in character and is composed of a larger amount of stroma and connective tissue and the tumor cells of the same type infiltrating the tissue in all directions. In these areas there is much more vascular tissue, many thin wall blood vessels, considerable hemorrhage, and in the fibrous tissue, considerable amount of dark brown pigment granules. This tendency to diffuse hem-

orrhage is quite marked in some foci, pigmentation not being so distinct except in one or two areas. Many portions of the tumor tissue are separated or surrounded by a rather thick hyaline fibrous tissue.

Diagnosis: Sarcoma.

While we awaited the pathological report, x-ray treatments were given, but in four days the patient left the hospital without permission and against our wishes and we have not seen him since. Otherwise the removal of the eye would have been advised.

Chief Interest: I. Rarity of condition. This is the first one met with in the experience of the writer. II. Verhoff and Loring say that these tumors are extremely malignant. III. The presence of pigment cells suggests a probability of its coming from the choroid through the cells which are sometimes found on the sclera at the exit of a vessel, which are derived from the choroid. However, these tumors are always extraocular.

Out-Patient Clinic of D. R. Black, M. D.

HYPERTENSION

For the past sixteen months, we have been interested in the question of high blood pressure, and especially the relation of kidney pathology to hypertension. We have been endeavoring to establish a method of examination which would enable us to say, with some degree of certainty, whether a given case of high blood pressure had an associated kidney lesion, and if so, the degree and character of this lesion.

We find little of definite value in routine urinalysis, except in those cases with a definite advanced Brights. The same may be said of blood urea nitrogen, sodium chloride content of the urine and blood, or for single phenol-sulphonephthalein tests. However, if one determines the specific gravity of the urine every two hours during the day, notes the amount of urine passed at night and calculates the urea content in the urine at given times following a dose of 15 gms of urea by mouth, and uses this data in connection with the other tests usually applied and the clinical history and picture of the case, he can often diagnose beginning kidney disfunction at an early date.

For our two-hour specific gravity determination, we use a modification of Mosenthal's Test. We allow the patient regular diet with no fluids between meals; Have him void at 8 a. m. and discard the specimen, then void every two hours during the day, noting the amount and specific gravity of each specimen. The night urine is collected from 8 p. m. until 8 a. m., the specific gravity and amount being noted. The sodium chloride content is calculated both for the day and for the night urine.

In carrying on our urea concentration tests, we follow the technique of MacLean, that is, the patient voids and receives 15 gms of urea by mouth; he voids in one hour, and in two hours the urea is calculated in the specimen before and each of the two following specimens. Normally the percentage should exceed 2%.

We find that most of the hypertension cases in our clinic show little, if anything, in the ordinary routine urinalysis. They have few clinical signs pointing to definite kidney pathology. The blood urea nitrogen has been of little value, and the phenolphthalein test is valuable in only a relatively small percentage, but we have found that in many of the cases, a low fixation of the specific gravity of the urine occurs over the 12-hour period and also that many of them pass an abnormally large amount of night urine. Another equally important finding is that even more of them fail to concentrate urea to any appreciable extent, even after a dose of 15 gms.

Normally, an individual should show a range of at least 10 points in the specific gravity of his urine taken at two-hour intervals during the day. His night urine should not exceed 400 cc. In other words, the kidney should be able to excrete the nitrogenous and other waste in a normal amount of water, but one of the first signs of beginning kidney disfunction is an increase in amount of urine required to dilute the solids. The beginning Bright's may excrete the normal amount of solids, that is, he may excrete a perfectly normal amount of urea in 24 hours, but he cannot excrete solids in a normal amount of water, therefore, he will pass urine of a low specific gravity, usually ranging from 1.006 to 1.012. The same holds true for the night urine. He is unable to excrete the waste material in 400 cc of urine and consequently

these cases almost always pass from 400 to 600 cc at night.

The following two cases illustrate, to a fair degree, the above statement:

George R. No. 10268, age 55, male; came to the clinic complaining of dimness of vision, which he says began about two years ago, and has been slowly progressing. He has occipital headache, and occasionally, dizzy spells, fleeting pains in the calves of his legs, and tingling sensation in his fingers and toes. He has had no throat trouble; his teeth are in good condition according to x-ray; has had chronic otitis media for 15 yrs; denies venereal disease. His heart is slightly enlarged to the left. There are no murmurs present. The lungs are clear and there is no edema. The pupils are equal and react to light and accommodation. The fundi are negative. His blood pressure is 170-110.

Routine Urinalysis Light amber. Specific gravity, 1.010, Alb.,—. Sug.,—. Diabetic,—. Acetone,—. Very few hyalin casts.

Two-Hour Test For Specific Gravity.

10 a. m. 1.007; 12, 1.006; 2 p. m. 1.006; 4 p. m. 1.010; 6 p. m. 1.008; 8 p. m. 1.003, *Night Urine* 480 cc 1.012, Sodium chloride, 1% with definite low fixation of specific gravity.

Blood Urea Nitrogen 20 mg per 100 cc; Phenolsulphonephthalein: First hour, 20; second, 20; Total, 40%.

Urea Concentration Test:

Before, 1.3%; First hour following urea, 1.3%; second hour following urea, 1.5%.

We have here a patient who has no definite clinical signs of kidney insufficiency, and where routine urinalysis is not abnormal for one of his age but who has a definite low fixation of specific gravity and inability to concentrate urea.

George K. No 20905, age 65, male; comes in complaining of substernal pain, occipital headache, burning and cold sensations in feet and hands, and occasional palpitation. His trouble dates one year back when he noticed some weakness in his legs, frequent headaches, blurring of vision, and occasional spots before his eyes; no dizzy spells, edema nor shortness of breath have been noticed. He gets up only

once at night to urinate and that about 3 a. m. Past history is negative.

Examinations His pupils are small, marked arcus senilis, react to light and accommodation; throat negative, several apical abscesses and marked pyorrhea.

Heart is decidedly enlarged to the left, no murmurs, sounds clear and distinct; radials visible pulsating; no evidence of edema; reflexes normal.

Blood Pressures 295-175.

Urinalysis Amber. Acid. Sp. Gr. 1.028. Alb.,—. Sug.,—. Diabetic,—. Acetone,—. Very few hyalin casts.

Two-Hour Spg. Charts

10 a. m., 1.002; 12, 1.022; 2 p. m., 1.028; 4 p. m., 1.032; 6 p. m., 1.032; 8 p. m., 1.029; *Night Urines* 490 cc, 1.028; Sodium chloride, 8%.

Blood Urea Nitrogen, 15 mg. per 100 cc.

Phenolphthalein, First hour, 12½; second hour, 15; Total, 27½%.

Urea Concentration before urea, 1.6%. First hour following, 1.9%; second hour following, 1.9%.

Our admission diagnosis on this man was "Essential Hypertension." We based this diagnosis on the fact that no definite clinical signs of Bright's were noted, and a normal urinalysis. When the Mosenthal test was completed, we still felt justified in sticking to our original diagnosis, the only abnormality in the test being an excess of night urine. His blood urea nitrogen is normal, but his Phenolphthalein is low and he fails to excrete 2% urea after his 15 gm dose. Therefore, our diagnosis was changed to an early diffuse nephritis with hypertension. We have carried this work on quite a number of cases and feel that we can gain considerable information in cases of this type. At present, I feel that the Mosenthal test gives us more practical information in the diagnosis of these cases than any other test we have. Our experience with the urea concentration test's would seem to indicate that we can note kidney insufficiency at an earlier date than with the Mosenthal or phenolsulphonephthalein test. However, more work is necessary before definite conclusions can be drawn. The reason for emphasizing this method of examination is simply the fact that the work can be carried on in

almost any office and in a very short time. Most function tests require elaborate apparatus and special training, both for the proper performance of the test and the interpretation of the results.

—R—

Active Immunization Induces Exercise

Exercise, if not carried to excess *aids development*. If the *immunizing mechanism* is belated, it should be developed. This can be accomplished by the injection of dead bacteria which cannot resist the phagocytes but which *stimulate* the immunizing mechanism, for their destruction exercises it, if you will.

Sherman's Polyvalent Vaccines are dependable immunizing antigens. Prophylactic immunization has demonstrated this fact.

Therapeutic immunization is doing so in acute and chronic infections.

Your infectious cases should have the benefit derived from the use of polyvalent bacterial vaccines. Having devoted our entire time to this subject, we feel that we can speak authoritatively. We will be pleased if we can be of service to you. Literature on request.

—R—

Postural Rest for Pulmonary Tuberculosis

Excellent results have been obtained by Gerald B. Webb, Alexius M. Forster and G. Burton Gilbert, Colorado Springs, Colo. (Journal A. M. A., March 26, 1921), in more than 200 patients with tuberculosis who were subjected to postural rest as a means of treatment. At the same time, so little attention has been given to the subject by those who specialize in pulmonary tuberculosis, that the authors feel warranted in again discussing this subject. The failures encountered have been in patients either too far advanced with bilateral disease, or in those considered favorable for the application of this procedure, but who failed to carry it out faithfully. Pulmonary tuberculosis is usually in the early phase a disease of the upper lobes, and the movement of these lobes is easily controlled by postural rest. As a matter of practical experience, it has not been noted that postural rest, with the preliminary increased excursion of the diaphragm, brings any disaster to patients when the disease has involved the lower lobe. Usually when such a phase of the disease is reached, pleural adhesions are likely to prevail, and these possibly modify the motion of the diaphragm. In the normal person there is

little hyperemia of the dependent lung during sleep. In a tuberculous patient, a moderate degree of hyperemia is produced by prolonged rest on the affected side. Certainly such prolonged rest does naturally assist in the moving over of the heart and of the mediastinum to the side of the more diseased and dependent lung. In patients with much expectoration, a short time several times a day is allowed to be spent lying on the less affected lung. This accelerates drainage. The patient then turns on the side of the more diseased organ, beginning with only a few minutes and gradually increasing the time until twenty hours or more a day are spent lying in this position. A small pillow is often placed under the ribs to increase the splinting effect. Results are obtained in a few weeks by the application of this thorough rest which are comparable to those obtained more quickly by artificial pneumothorax. Fever will subside, cough will cease, and sputum of many ounces may decrease to a mere trace. It has been of special interest to note the decrease and at times almost complete disappearance of rales. Many patients, considered as certainly requiring the application of artificial pneumothorax, have been restored to health by this simple procedure.

—R—

Cardiac Standstill with Syncope Following Pressure on Right Vagus Nerve

Wyndham B. Blanton and H. Wallace Blanton, Richmond, Va. (Journal A. M. A., April 30, 1921), cite the case of a man, aged 54, whose vision suddenly became blurred, and he fell to the floor unconscious when his wife attempted to button his collar. In about three minutes, he regained consciousness, and feeling no ill effects went as usual to his work. He apparently was normal in every respect. To elicit Czermak's sign, pressure was made with the finger on the right side of the neck anterior to the sternocleidomastoid muscle and just below the angle of the jaw. At the same time the heart was auscultated. With moderate pressure, slowing of the heart rate was immediate and pronounced. Firmer pressure was then exerted, and the heart came to a standstill, the patient turned pale, became suddenly limp, and exclaimed, "I am going to faint." At this point the pressure was released and the patient came round, declaring that he had felt precisely the same sensations when he fainted while his wife was fastening his collar. Pressure on the left side of the neck failed to produce these effects. On several occasions this experiment was repeated, and it was found that stoppage of the heart could be produced at will by this method. The patient has never experienced any ill effects following cessation of the heart beat as thus produced.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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The Wichita Meeting

The last annual meeting of the society was the most successful in its history. The attendance was the largest on record, there being 430 names registered. The program was an improvement over most of those we have had before. Especially noticeable was the higher tone of the discussions. The secretary should be complimented for the success of his efforts to have some one prepared to open the discussions on each paper. After this meeting hardly any one will question the importance of this plan.

Another very striking fact was the few failures on the program. It is gratifying to observe how sincerely the members respect places assigned them on the program. Not many years ago it was necessary to anticipate the failure of at least one-third of the program, but such is not now the case. At this meeting there were a few unable to be present, but these were unavoidable absences.

One who has been a regular attendant at the State meetings must also have been impressed by the increased interest in the scientific program. The assembly room was always well filled and the papers and discussions received very close attention. On the other hand the meetings of the House of Delegates have lost prestige and are no longer attractive features of the annual meetings, in fact the election of officers appeared to be an unwelcome interruption to an otherwise enjoyable meeting. Only a few of the delegates were in attendance and

they were apparently little concerned about the results.

One quite important amendment to the by-laws was made. This provides that every member whose annual dues are not paid and turned in to the secretary of the State society by Feb. 1st will be suspended. Instead of three months we now have only thirty days in which to pay our dues.

The Wichita men spread themselves on entertainment. Only one evening was open for them but they gave the members a sumptuous banquet and a dance. There was plenty of food, fun and music.

The New President

To say that a wise selection was made in the choice of Dr. Kenney for president is only to repeat a sentiment frequently expressed by those at the last meeting.

Dr. Kenney has a pleasing personality, is widely and favorably known over the state, has been an active and faithful member of the Council and has shown unusual ability as an organizer in his own District. His position as Superintendent of the State Hospital for Tuberculosis affords him many opportunities to visit various parts of the State. Perhaps no one in the Society could so nearly meet our present requirements as Dr. Kenney.

The Secretary proposed as a slogan for the year: "Two Thousand Members." That implies the greatest possible degree of cooperation. It means that the officers and Councilors of the State Society and the secretaries of County Societies must do just a little more than they think they should. It means that many counties must be organized and it also means that several county societies must be revived. It means that every eligible physician in the State must be a member of the Society.

As a rule the presidency of the Society has been regarded as an honorary position. It has not been the custom for the president to take a very active part in membership campaigns, but at this time the need for his active participation is very decided. There is no question but the visits of the President to some of the less active societies will do much toward furthering the plans of the Secretary.

Chips

The Physicians of Kansas City are counting on getting a special Pullman thru to Boston for the A.M.A. Meeting. There will be no extra charge for reservations on this car. Anyone interested please send in their names and the number in their party to Secretary, Jackson County Medical Society, General Hospital, Kansas City, Mo. Data on routes and schedule will be sent them when decided on.

It is probably true that cancer is much more prevalent in meat eaters than in vegetarians. In fact it is claimed that cancer is almost unknown in vegetable and fruit eating nations.

Instead of using our teeth for masticating our food, alone, we add to their duty that of grave digger.

To insure a child life and to raise it properly "it should be subject to a large amount of wholesome neglect." The young puppy or kitten fondled too much dies.

There are 160,000 names of physicians in the new Directory recently published by the American Medical Association. It also contains a list of \$7,500 hospitals and lists medical societies, medical journals, medical colleges, medical libraries, etc.

Harrower claims "the common single cause of hyperthyroidism undoubtedly is focal infection, especially of the structures near the thyroid gland." He claims that the thyroid may be irritated by toxins carried in the blood stream and by the transmission of irritating substances through the lymphatics.

There were 430 registered at the Wichita meeting. Of these 84 were from Wichita, 27 from Kansas City and 18 from Topeka. That was a good attendance from Wichita, a very fair attendance from Kansas City, but a mighty poor attendance from the largest county society in the State.

In examining specimens of semen to determine the question of sterility if dead spermatozoa are found it must then be determined if their death occurred in or outside of the body. If the tails are curled they died within the body,

if the tails are straight they died outside the body.

There is a theory, credited to Hoppe, that hyperthyroidism and hypo-ovarianism are closely related; that the hormones of the sex-glands exert an inhibitory and regulating influence upon the thyroid secretion; that hyperthyroidism results from lack of physiological inhibition due to deficient function of the sex-glands. The writer observed, in a case of myxedema with other evidences of hypothyroidism, marked improvement during the administration of ovarian substance.

Smelling crime is recognized evidence in courts. A policeman was passing by a house and scented crime. He went into the house and found a still, and the proprietor boiling grapes.

The court held, "if an officer may arrest a man when he actually sees the commission of a misdemeanor or a felony, why may he not do the same, if the sense of smell informs him that a crime is being committed? Sight is but one of the senses, and an officer may be so trained that the sense of smell is as unerring as the sense of sight." And the court so held. Another unique decision. "If you are a passenger in an auto and know better than the driver of the car when, where and how it should be operated you are held to be at the wheel." Again. "In a legal suit brought against John Barton Payne, Director General of Railroads, the constable made the following return of service: "Cannot locate Pain." Evidently a fugitive one.

"Dear Sir: I received your letter about what I owe you. Now be pashent. I ain't forgot you, and as folks pays me I'll pay you, but if this was Judgment day and you was no more prepared to meet your God, than I am to meet your account, then you shore would go to Hell. Good by. Bill Jones."

The Judge, facetiously, said to the prisoner, at bar, whose name was Joseph, "You are not the Joseph who commanded the sun to stand still are you?" "No," said the prisoner "but I am the man who made the Moon Shine.

A doctor lives on his income in his profession. He provides for his dotage by cultivat-

ing a little business acumen. But there is danger in the merger of the profession and business that the professional end will become sub-merged.

Kaplan (N. Y. Med. Jr. 4-20) says: "The pituitary, the tonsil and the appendix are functionally somehow related; What the total symptomatology amounts to when one or the other of these structures fails to perform its duties properly is still a moot question, but fragments of the structure are nevertheless to be had when a closer function study of them is pursued. Supraorbital headaches of a severe form will not infrequently develop in the tonsilloprive person and will give the doctor a therapeutic task not easily shouldered." He does not claim that pituitary extract is the only remedy but suggests the value of half a grain once or twice a day for a few days.

—R—

Excerpts

BY THE PRODIGAL

"In determining the parentage of a child, blood samples of the baby and suspected parent were furnished the doctor who, by means of an electro radiometer, according to the electron theory under which the experiment was made, measures the energy liberated by the human body and all its parts, and determines electrical relationship between living cells.

In this way the vibrations of the blood corpuscles were ascertained and the units of which the corpuscles are composed. The vibrations in the blood samples were found to be identical. The blood of a child and its parent vibrate with identical rhythm. The blood, other than that of the parent, would not be in unison or harmony with the infant blood."

The legality of the findings was confirmed by the court in the San Francisco case, in which the Italian disclaimed fatherhood of an illegitimate child. The court named him Daddy. It may be that observed facts had a psychic bearing in the action of the court as well as the doctors "ion" findings. It would not be diplomatic to ascribe it to nationality.

Another far reaching, practical discovery has been made by Dr. H. P. Von David and re-

ported in the lay press. This discovery enables the scientist to determine the vocation the child is fitted for by nature. It is called mechanicalization of the mind. The theory is based on the fact (?) that the emotions experienced in the human mind give varying reactions when an electrical current is passed through the body; and the doctor expects to construct a machine that will read the mind of the child, determine its latent possibilities and establish a vocation most favorable to the individual capacity.

The principle underlying the character reading machine, as explained by the doctor, is that a persons mind will react by deflection to certain suggestive key words or pictures indicative of various vocations.

The doctor claims that every human brain from its earliest period (in the protoplast) holds an inherent (potential) dominant impulse or capacity which, if recognized, early and properly developed, leaves no doubt as to the character of that persons true vocation in life. And that each brain, together with its associate organs, veins, nerves, muscles and body processes, generates and can transmit a force whereby it can be induced unconsciously to register the nature of the special individual gift.

The impulses or changes caused by the projection of various words and pictures are conducted through the wires from the mercury contact glasses through an apparatus in an adjoining room to a recording device in a third room which has been darkened. The record thus made is superimposed on the curve of norms and a new curve plotted as a result.

There may be some nutriment in this meat for the medical Caesars to feed upon.

It is related of General Grant, that when two years old, his father thought to frighten him by firing a pistol off close to him, but it did not frighten the child and he laughed and wanted his father to "do it again." A man said "that child will be a general." The medical man is chary of innovation. This skepticism has been beat into him largely by his failures.

Failures may lead to success or to agnosticism. That is the difference between the successful physician and the failure. When skepticism causes inquiry and investigation, it is vitalizing, progressive and evolutionary. When skepticism

is agnostic the mind becomes chaotic. There are but few physicians who can visualize and project themselves into the future. The future being an unknown quantity, it takes the specialized visionary, the mind saturated with imaginations and imagery to prospect ahead, and blaze the road for the slow, tortoise plodder to prove the truth or falsity of the way mapped out by the psychic pioneer. These plodders are the preventives of stampedes in regular medicine.

It is not best, however, to keep in low, always. The world has a move on it and the practice of medicine must keep step to the rhythm and get in high now and then—to a has-been it looks like its being done—the goods are there or on the way.

Patients who have heart trouble are advised to go to a lower altitude. Those having lung trouble to a higher altitude. The poor fellow who is afflicted with both heart and lung trouble has no place to go.

The advice is formulated into a rule. A rule is made, only, where there are exceptions. If there are no exceptions there is no rule, it is an axiom.

In case of weakened or irregular heart action with auricular flutter, caused by innervation from flue or some other unknown cause, and at the same time a bronchial catarrh with impaired respiration, a higher dryer altitude is the cure. The rare, dry air checks the flow of secretion by lessening the irritation and thus lightens the heart load and the hyphenated unfortunate has his inning.

There is a healthy rivalry now on between the dietitians and the physicians. An up to date internist is a good dietitian. Unfortunately it is often the physician's Rubicon in not knowing the proper dietary for his sick patient.

A correct diagnosis is necessary to be able to treat a case of sickness intelligently and successfully. But a close second is to know what the patient should eat; more important for the patient's recovery often than medicine.

Mother earth has placed before man the kind of food he should eat by what she produces, where he is. In the tropics, fruits and vegetables; in temperate zones the proteins are added; and in the frigid zones the meats, fats

and whale blubber. Hence the kind and the character of the food and the quantity to be given, its preparation and frequency and the climatic conditions bulk largely in the success of the treatment.

"The Book" says man was made upright but he has sought out many inventions. One of the inventions is an artificial appetite. Few persons like food in its natural state. Vegetables and almost all kinds of food must be salted and peppered until the natural taste of the food is destroyed or the taste covered over or disguised before it is palatable. This excess of salt and pepper and other condiments overload the system and are irritants to the kidneys, bloodvessels and other organs of the body and bring on early break downs in the form of arteriosclerosis, nephritis, Bright's disease, diabetes, etc. This is shown clearly by the control of infectious diseases and the increase of the former diseases mentioned.

Postural treatment is another link in the chain for the cure of tuberculosis. It is an added attainment to the rest cure. It is rest treatment plus position, the tubercular subject being required to lie on the side of the affected lung. This position splints the lung to an extent. At any rate it is more restful to the affected lung than the upright or recumbent position other ways. When the lung is in the breaking down stage the patient should turn over on the well side, for short time, to let the diseased lung drain. If both lungs are equally involved the patient should lie on his back.

In pleurisy nature splints the lung to prevent friction and put the lung at rest. Maybe there is something in the postural treatment in tuberculosis.

The tuberculin test in cattle will react in many cases when the cattle are free of the tubercle. This has been found out by killing the cattle and finding no tubercular foci. In some cases scars were found, but no tubercle, showing complete recovery.

It is claimed that a very large per cent of the human family have had affected tubercular areas and have recovered. How can these cases be differentiated when subject to the tuberculin

test We do not want to kill all of them to find the tubercle.

—R—
SOCIETIES

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Stafford County Society

The Stafford County Society met in St. John at 3:00 P. M. The attendance was small on account of a day of continuous rain. Members present, C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John; W. L. Butler, W. S. Crouch, T. W. Scott, Stafford; H. H. Miner, Macksville.

The society had as guest Dr. Karl A. Menninger, of Topeka, specialist in nervous and mental diseases, who addressed the society on the subject of "fits."

Under this title he described all sorts of convulsive seizures and stated that the confusion and disinterestedness of the general practitioner relating to mental and nervous diseases was largely due to their classification. The older classification was based entirely on the symptoms and as a result an endless array of technical terms and names so complicated the subject as to discourage and finally disgust the seeker for information. This deplorable fact could be remedied to a very considerable degree by a simplified and rational classification which the speaker made by subdividing mental diseases under twelve headings as follows: 1. Brain Syphilis. 2. Gross Mental Diseases. 3. Feeble-mindedness. 4. Idiopathic Epilepsy. 5. Drugs. 6. Deliriums. 7. Mental Diseases of Old Age. 8. Schizophrenia. 9. Paranoid Diseases. 10. Circular Psychoses. 11. Psychoneuroses. 12. Miscellaneous Group.

Each of these was discussed and case histories typical of the several conditions presented. It was a very interesting as well as profitable meeting and the members were profuse in expression of appreciation.

The Stafford County Society has its latch string out perpetually to Dr. Menninger.

The secretary reported as guest of the society for the second Wednesday in May, Dr. H. E. Haskins, of Kingman, Kansas, who will read a paper on "Gynecological Problems."

J. T. SCOTT, Sec.

Sumner County Medical Society

The Sumner County Medical Society met at the Park House, Wellington, March 31. Supper was served at 7:30.

Program: Infectious Diseases; Whooping Cough, D. E. Kisecker, discussion by F. F. Netherton; Measles and Scarlet Fever: (a) Differential Diagnosis, E. A. Evans, discussion by H. A. Vincent; (b) Role of the Streptococcus, R. W. Vandeventer, discussion by J. C. Wall. Diphtheria, W. H. Neel. Infantile Paralysis, S. T. Shelly, discussed by W. E. Bartlett. Syphilis, W. M. Martin, discussed by J. C. Caldwell.

T. H. JAMISON, Sec'y.

Pratt Medical Society

PROGRAM FOR YEAR 1921

March 7:

Enterocolitis Treatment and Management,
Dr. Gaston.
Discussion, Drs. Price and Maness.

April 4:

Indications for Tonsillectomy, Dr. Thompson.
Discussion, Drs. Jenkins and Atkins.

May 9:

Treatment and Management of Interstitial Nephritis, Dr. Atkins.
Discussions, Drs. Bucklin and Campbell.

June 6:

Prophylaxis and Management of Eclampsia, Dr. Melton.
Discussion, Drs. Martin and Gaston.

October 3:

Differential Diagnosis and Management of Scarlet Fever, Dr. Campbell.
Discussion, Drs. Phillips and Cochran.

November 7:

Diagnosis and Treatment of Renal Calculus, Dr. Phillips.
Discussion, Drs. Price and Atkins.

December 5:

Etiology Diagnosis and Treatment of Sinusitis, Dr. Jenkins.
Discussion, Drs. Bernstorff and Thompson.
G. E. MARTIN, M. D., Sec.

Jewell County Society

The Jewell County Medical Society met in the Y. M. C. A. rooms at Mankato on Monday, April 22. Those present were: Drs. Hawley, (President), Hershner, Wesselowski, Kinnamon, Vallette, Piper and Hill. Drs. Eliff, Patrick and Haughey of Concordia were also present. Drs. Eliff and Patrick were elected to membership. After a business meeting Dr. Hershner read a paper on "Proctitis" and Dr. Piper read a paper on "Benzyl Benzoate". The next regular meeting will be held in October at which time there will be an election of officers.

L. V. HILL, *Sec'y*

Butler County Medical Society

The regular meeting of the Butler County Medical Society was held at the Y. W. C. A. rooms in Eldorado, Friday, May 6th, at 6:30 sharp.

Program: Dinner, Y. W. Ladies. Paper, Blastomycoses, Dr. H. M. Lyle. Discussion, Dr. F. L. Preston. Paper, Some Reasons Why We Should be Active Members of the Medical Society, Dr. R. B. Earp. Discussion, Dr. F. F. Lemon. Round Table, Fees and Other Things, the Society.

BOOKS

Practical Clinical Analysis of Blood by Victor Caryl Myers, M. A., Ph. D., Professor of Pathologic Chemistry, New York, Post Graduate Medical School and Hospital. Published by C. V. Mosby Co., St. Louis. Price, \$3.00.

A good many of the progressive men in the medical profession are finding difficulty in their blood examinations. They are finding a greater degree of uncertainty and unreliability than the requirements will readily permit. Any author who can present those methods that will assure definite and certain results will certainly receive a flattering reception. The author of this work has included only those methods that his experience has shown to be dependable.

Traumatic Surgery. By John J. Moorhead, M. D., F. A. C. S., late Lt. Col., Med. Corps, American Expeditionary Forces; Professor of Surgery and Director of Department of Traumatic Surgery N. Y. Post Graduate Medical School and Hospital. Second edition, entirely reset. Octavo of 864 pages, with 619 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$9.00, net.

This is a work which is especially adapted to the surgical needs of the general practitioner. Since most of the traumatic surgery falls into his hands it is quite important that he should keep posted on the modern methods of treatment in such cases. The author has revised and rewritten much of his work so as to include those methods that were found to be especially useful during the war and readily adaptable to civilian practice. The work is well illustrated and the descriptions of technique are clear and definite.

Tuberculosis of Children, by Professor Hans Much, Director of the Department for the Science of Immunity and for the Research of Tuberculosis, University of Hamburg. Translated by Dr. Max Rothschild, San Francisco. Published by The Mac Millan Co., New York.

This is a monograph on Tuberculosis of Children with a review of Dr. Much's theories of immunity and a description of the latest advance in the treatment of tuberculosis—the "partigens" or partial antigens. It is claimed that all forms of tuberculosis are adapted to this treatment, unless there is an entire absence of antibodies. The author's most particular contention is "that every attempt to heal tuberculosis has as its ultimate purpose the improvement of immunity."

The Medical Clinics of North America (issued serially, one number every other month), Volume 4, Number 5. By New York Internists. Octavo of 344 pages, with 58 illustrations. Per clinic year (July, 1920, to May, 1921). Paper, \$12.00 net; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

In the March number of the Clinics we note the following: Jaundice following the administration of arsphenamine. The functional activity of the heart. Multiple Serositis. Reversion secondary sex phenomena. The significance of glycosuria. Variation in cases of hyperthyroidism from a clinical, laboratory and therapeutic standpoint. The clinical values of basal metabolism. Management of convalescence of lobar pneumonia. The role of the endocrines in common medical diseases. The limitations of metabolism determinations in diagnosis. The heart in the tuberculous. And many others.

The Surgical Clinics of North America (issued serially, one volume every other month), Volume I, Number I. By Philadelphia Surgeons. Octavo of 259 pages, with 112 illustrations. Per clinic year, \$12.00 net, paper; \$16.00 net, cloth. Philadelphia and London: W. B. Saunders & Company.

There is first an introduction by Dr. William Williams Keen. Then an article by Deever on Pancreatitis, a clinic by J. Chalmers DeCosta, a clinic by John G. Clark on Prolapsus Uteri, a clinical lecture by Charles H. Frazier on Trigeminal Neuralgia, a clinic by A. P. C. Ash-

hurst, and clinics by Gibbon, Nassau, Thomas, Jopson and Miller.

American Medical Directory, a register of the legally qualified physicians of the United States and Canada, and of those institutions, organizations, activities, etc., directly related to the medical profession. Contains 2460 pages. Price, \$15.00. Published by American Medical Association, 535 North Dearborn St., Chicago, Ill.

Lists with data: 160,000 physicians, 7,500 hospitals, etc., medical societies, medical journals, medical colleges, medical libraries, lists of specialists, members of special medical societies, medical officers of the United States army, navy, public health service, Indian field service. The directory also gives authentic data on medical graduation, the educational qualifications for medical practice; medical licensure, the legal authority for medical practice. The 160,000 names of physicians, with data, are given in geographical order, by state (Alabama to Wyoming), and in addition, U. S. possessions and Canada. Each state is resectioned by town and the names of physicians in each town are given in alphabetical order. Following this appears a complete alphabetical list of physicians from A to Z. The latter enables one to locate a physician when his address is not known.

New and Nonofficial Remedies, 1921, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1921. Cloth. Price, postpaid, \$1.50. Pp. 418+XXXII. Chicago: American Medical Association, 1921.

New and Nonofficial Remedies contains descriptions of proprietary medicines which are offered to members of the American medical profession. These descriptions are critical and trustworthy. They are based in part on investigations made by, or under the direction of, the Council on Pharmacy and Chemistry and in part on information supported by evidence submitted by the manufacturer or his agent. Statements made by those interested in the manufacture or marketing of preparations must be supported by substantiation evidence or conform to generally accepted facts before such statements are accredited in the acceptance of the article for N. N. R.

This volume contains descriptions only of those proprietary and nonofficial products which are in accord with the principles underlying the rules for the acceptance of products formulated by the Council. These principles provide that the quantitative formula of the article must be declared, the therapeutic claims made in advertising (or in marketing) the article must be true and the preparation must have, or give promise of having, therapeutic value. Physicians may be guided by the information con-

tained in this book in determining whether or not these proprietary preparations are indicated in the treatment of their patients. The interests of their patients as well as of the physicians themselves will be safeguarded by following the suggestion made in The Journal of the American Medical Association (Helping the Council of the American Medical Association, Nov. 6, 1920, page 1275) and by giving no consideration to any proprietary medicinal agent which has not been accepted and announced in New and Nonofficial Remedies.

R

The Doctor's Smoker

When doctors at their yearly meeting,
Discuss both solid things and fleeting,
They seldom recreate with poker
But something worse, an evening smoker.
It really is of great concern
The way the cabbage leaves they burn.
The air is blue, the stench is awful,
The pity, too, such things are lawful.
Some sing a song, some tell a story,
Some are recent, some quite hoary.
There're certain men been coming here
Since the old days of lager beer.

There's Liggett, Kinney and McGuire,
Plaisdel and Mortons, son and sire.
Munn, Mitchell, Moses and Sawhill
And Fee whose mother called him Will.
Chambers, and Shelley, May, Axtell,
Menninger, Gray and Jones, Gsell.
Young, Trueheart, Everhardy, Smith,
Hassig, what names to conjure with.
Milligan, McVey and O. P. Davis
From ill, Oh Lord, protect and save us.
There's scores of others, I can name them,
Who're always here and who can blame them.

Glasscock can spiel, his arms he swings,
Of Scottish hooch, John Dillon sings,
Goddard recites by fits and starts
That clubs are trumps as well as hearts.
Old Jack Riddell so fat and stout
Looks on and laughs while others spout,
Laughter is heard and sound of glee
At Harry Ross's mimicry.

All dignity is laid aside
And mirth slips in on every side,
When he attends the doctors' smoker
There's fun enough for every joker
Who sits and hears such curious tales,
The while consuming coffin nails.

Dr. J. R. Scott.

C. & C. Bureau

Every week shows a little more interest in the Bureau. In order that this work may be made the success it should be made every member of the society must take advantage of its facilities. You must not expect the Bureau only to help you, but you must help the Bureau to help others. It must be a co-operative system. The man who refuses to pay Dr. A. will most likely also refuse to pay you. In sending in your accounts, give the name in full if possible, the occupation if known or can be learned, the correct address or the last known address.

The Bureau would like to have the present addresses of the following. If you can aid in locating any of these parties you will be helping the Bureau, helping yourselves and will probably be doing a favor to the parties themselves.

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—R—

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Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for April 1, 1921.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who, having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
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 Publisher—W. E. McVey, under direction of the Council of the Kansas Medical SocietyTopeka, Kansas
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Managing Editor—None.
Business Manager—None.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, Dr. C. C. Klippel, Hutchinson, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. L. H. Munn, Topeka, Kansas, Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVEY, Editor.

Sworn to and subscribed before me this 29th day of March, 1921.

(Seal)

J. M. STARK,
Notary Public.

(My commission expires May 13, 1922.)

R

Newer Aspects of Some Nutritional Disorders

Alfred F. Hess, New York (Journal A. M. A., March 12, 1921), reviews current views on vitamins and their relation to nutritional disorders, especially scurvy and rickets. Speaking of the use of cod liver oil in the treatment of rickets, he says: "It is recognized as a drug which benefits nutrition, but the fact that it has unequaled value in the prevention and cure of rickets is hardly realized." It is possible to rid any locality of rickets by means of the use of cod liver oil. There are approximately 125,000 children in New York City between the ages of 3 and 15 months, the period of greatest susceptibility to rickets. If we estimate generously that the families of one-third to one-quarter of these children are unable to purchase cod liver oil, and if we agree that the development of rickets may be prevented by giving a teaspoonful three times a day, then, at the present cost, rickets could be practically abolished in this

city by the expenditure of about \$150,000 a year. This is merely one of many instances in which the community does not get the full benefit of medical knowledge. Studies of the deficiency diseases have served to illustrate in a most convincing manner the intimate relationship of nutrition to infection, and have led to attributing increased significance to the former. Indeed, the chief clinical importance of disorders of nutrition seems to be associated with the fact that they bring about an abnormal condition of the tissues which renders them more susceptible to the invasion of bacteria or their products. Veterinarians and farmers are well aware that faulty nutrition leads to fatal infections. This "nutritional-infectious" aspect has been convincingly illustrated on a large scale among the peoples of the Central Empires, who during the many years of the war suffered from various forms of malnutrition. The general impairment of health was most strikingly manifested both in adults and in children by the great spread of tuberculosis and its increased mortality.

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8. An autopsy was performed upon each patient (private and ward) who died following a cranial injury, and the findings are recorded; errors of diagnosis and of treatment are thus disclosed and fully discussed at the end of each case-history.
9. The technique of the operation of subtemporal decompression and drainage is described in detail and fully illustrated; moving pictures show clearly the various stages of the operation.
10. Brain injuries in newborn babies and children—both the acute and the chronic cases, with special reference to the condition of cerebral spastic paralysis due to an intracranial hemorrhage at the time of birth; the differential diagnosis and the appropriate treatment.
11. The common conditions of post-traumatic neurosis and neurasthenia, especially in regard to lawsuits, are also discussed in detail and illustrative cases are reported; the differential diagnosis is emphasized.

By WILLIAM SHARPE, M. D.

Professor of Neurologic Surgery, New York Polyclinic Medical School and Hospital; Consulting Neurologic Surgeon, Manhattan Eye and Ear Hospital, Hospital for Ruptured and Crippled, Beth Israel Hospital, etc., New York City.

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THE JOURNAL

of the

Kansas Medical Society

Vol. XXI

TOPEKA, KANSAS, JUNE, 1921.

No. 6

Problems in Surgery of the Gallbladder and of the Bile Ducts

EDWARD STARR JUDD, M.D., Rochester,
Minn.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Some time ago it seemed as though definite standards for the analysis and treatment of disorders of the gall bladder had been established. It was the general opinion that all that remained to be developed was the artistic side of the several different operations. While it is a fact that the results of the treatment of these cases are as a rule very satisfactory, there are at the same time a number of problems that warrant study and investigation.

It is now the common opinion regarding the etiology and especially the source of infection in the excretory apparatus of the liver, that these infections enter the tissues of the gall bladder and ducts by way of the blood stream and lymphatic vessels. While it is entirely possible that bacteria may gain entrance through the lumen of the bile ducts either from the liver or from the intestines, nevertheless it is unusual to find any evidence to support the contention that infection often occurs in this manner. Infection gaining entrance by the portal circulation may pass to the gall bladder by way of the lymphatics which communicate between the gall bladder and the liver. The studies made on the source and extent of these infections emphasize the importance of the lymphatics in this region as distributors of the infection. It has been shown by Graham and corroborated by others, that in all cases of cholecystitis there is an associated hepatitis. Deaver and others assert that certain cases of cholecystitis are associated with pan-

creatitis. Deaver further states that the pancreatitis is secondary to the cholecystitis and that the infection extends from the gall bladder to the pancreas by way of the lymphatics. Observation and study of cases in the clinic seem to support the contentions of Graham and Deaver. We are impressed more than ever with the fact that these infections are rarely if ever confined to any one viscus but that more often several tissues are involved in the same case. Aside from the liver and pancreas, a coexisting inflammation in the stomach, appendix or duodenum occurs so often that it must be considered in these cases. In my experience an inflamed appendix has been found so often in association with cholecystitis in the female and in association with ulcer of the duodenum in the male that it would seem to be more than a mere coincidence. I believe that the infection originates in the appendix and extends to the gall bladder and duodenum by way of the lymphatics.

One of the problems which must be considered in diseases of the gall bladder is the recurrence of attacks after cholecystectomy. In many instances such recurrence is due to the formation of stone in the duct or to retained infection. Undoubtedly in certain instances the recurrence is due to hepatitis or pancreatitis, which may gradually disappear. It is also possible that the remaining symptoms may be caused by an ulcer or an inflamed appendix which should be attended to at the primary operation unless it is contraindicated.

I have been greatly interested in a small group of about ten cases in which the condition was difficult to explain. The patients had all been operated on for chole-

cystitis, some with stones and some without. All were completely relieved of symptoms for from a few months to six years, and then had recurrences of typical hepatic colic, in some instances with slight jaundice. In re-operation on these patients no lesions were found unless it was a slight degree of hepatitis or pancreatitis. In each instance I established drainage of bile by placing a small tube in the duct, and apparently the patients are relieved permanently. In performing the secondary operation I expected to find overlooked or reformed common duct stones. In each instance the common duct was dilated but had more the appearance of compensatory dilatation than the thick-walled and greatly dilated duct such as is seen if a stone has passed recently. In each case a search was made for lesions elsewhere but nothing was found. It was concluded that these patients undoubtedly had hepatitis or pancreatitis, or both, at the time of the first operation, and that the recurring attacks were exacerbations of these infections. Provided these were cases of inflammation in the liver or pancreas, it would seem that hepatitis and pancreatitis may occur without any marked gross change in these viscera.

So far as I know, attention has not been directed in the literature to cases of this type. They bring up the problem of whether or not we should be able to recognize them at first, and whether common duct drainage should have been established at the time of the primary operation. In each case the gall bladder was removed at the first operation. If the recurring symptoms are due to the absence of the gall bladder it is strange that so few patients have such symptoms after cholecystectomy. The symptoms of a recurrence must be the result of a pathologic change, and when we are able to recognize this condition we may be able to settle the question.

Mann, working in the experimental laboratories in our clinic, has been able to produce a specific cholecystitis by means of chemicals introduced into the blood stream, the solution gaining entrance to the tissues

of the gall bladder through the blood stream. He also showed that the reaction did not extend beyond the gall bladder and cystic duct. He injected about 10 c.c. of chlorinated soda for each kilogram of body weight into the blood stream of dogs, and obtained the same reaction in a high percentage of the experiments. The reaction consisted in the breaking down of the capillaries and lymphatics, and infiltrating the wall of the gallbladder with blood. The reaction in the tissues of the gall bladder takes place very soon and is completed in 24 hours. Having proved that the solution reaches the gall bladder through the blood stream he noted that the reaction was most marked when there was a good blood supply from the liver to the gall bladder. In some of the dogs a chronic cholecystitis finally developed. I believe that Mann's experiments demonstrate that any material in the blood stream may become lodged in the tissues of the gall bladder, and that they support the theory of the selective activity of bacteria as well as of chemicals, and suggest the importance of caring for dental sepsis and nose and throat infections in all cases.

Usually pathologic lesions in the gall bladder and ducts are manifested by a clear-cut syndrome and the diagnosis is relatively simple in most instances. In a certain group of cases of chronic inflammation the diagnosis may not be made with any degree of certainty. Cholecystitis, considered clinically, may be grouped into several types. The first type should consist of cases of typical hepatic colic. In these the pain is sudden in onset, usually severe enough to require morphin, occurs in the epigastrium and radiates through to the back and right shoulder. The severe pain subsides, usually in a few hours. A soreness remains in the gall bladder region for a short time, but after that there is a remission of all symptoms until another attack occurs. These cases may run for many years in the same manner, or additional symptoms more or less constant gradually appear, usually referable to the digestive tract, and the condi-

tion becomes one of gall bladder dyspepsia. This second type of cholecystitis may occur secondary to the intermittent hepatic colic or it may occur without the forerunner of right sided hepatic colic. The diagnosis of cholecystitis which is the cause of the dyspepsia is not so easily established if there is no history of attacks. It is the same old question of whether the chronic inflammation in the appendix is the cause of symptoms of trouble in the stomach. The evidence that an infected appendix or gall bladder may be the cause of the dyspepsia is certain, but to say that a certain case of dyspepsia is caused by either of these when there is no local evidence of trouble in the appendix or gall bladder is quite a different matter. The first consideration in these cases is to rule out all the other possibilities of the cause of the symptoms. Dyspepsia is very common and it is not likely that the gall bladder or the appendix are responsible for all of the cases that are not directly due to ulcer. Any disturbance in the cardiac, renal, or biliary functions is apt to be manifested by dyspepsia. The symptoms of dyspepsia caused by ulcer of the stomach or duodenum are entirely different from those caused by the so-called reflex condition. The ulcers are characterized by the fact that the patients obtain relief by taking food or alkalies, while patients with gall bladder dyspepsias are made worse by food, or they are not affected by it. The pain with cholecystitis, although varying in severity, is constant throughout the day, but absent at night, while the pain caused by ulcer occurs regularly at a certain time after meals and usually at a certain time at night. Certain foods may especially disturb patients whose symptoms originate in the gall bladder and all foods are apt to have the same influence on the ulcers, so that clinically the two types are recognizable and can be distinguished. A high degree of proficiency in diagnosing ulcers of the stomach and duodenum and often the differential diagnosis has been reached by the aid of the x-ray. It has not, however, been so helpful in diseases of the gall

bladder even if it contains stones. The most severe types of cholecystitis often occur without stones and without changes recognizable in roentgenograms so that the x-ray in these cases is not of great diagnostic value.

A new method has recently been devised to aid in diagnosing lesions of the biliary tract. It consists in passing a Rehfus tube into the duodenum in the usual manner and then introducing magnesium sulphate directly into the duodenum, thus causing a relaxation of the sphincter of Oddi. This allows the bile to flow from the duct freely into the duodenum, and further, the magnesium sulphate presumably causes contractions of the gall bladder. It is assumed that in this manner the bile from the common duct, from the gall bladder and from the ducts of the liver is obtained separately, and that by an examination of the bile from these different places the diagnosis may be made. Various clinicians are very enthusiastic over this method, and many doubtful cases in the clinic have been subjected to this examination by Hartman. We have not found that the condition of the bile always reveals the condition of the biliary ducts and the gall bladder. However, we are not in a position to absolutely condemn the method without further study and observation.

In the third type of cholecystitis a certain infection is retained in the gall bladder for a long time such as commonly occurs after typhoid infection. Such quiescent infections may become active at intervals and cause local symptoms. The cases in which these long standing infections act as a focus for more or less general infection constitute one of the most interesting problems in diseases of the gall bladder. The possibility of a small focus of infection causing remote symptoms is being better understood, and although reserve should be maintained with regard to the possibilities of the gall bladder as a focus, at the same time our experience is sufficient to prove beyond question that the gall bladder, when infected, may be the cause of a general infection, and that at-

tention to it may relieve the patient. It is of course essential to have some local evidence of cholecystitis before considering treatment.

In the fourth type of cholecystitis the condition of the gall bladder is associated with migraine. We are unable to explain this relationship but it exists nevertheless. We have had a number of cases in which the two conditions were associated, and the patients were relieved of the migraine after the gallbladder had been cared for. This occurred too often to be a mere coincidence, and it cannot be accounted for by the infection. It is possible that operation relieved the migraine, as it often relieves epilepsy. The patients in this group have remained free from their migraine symptoms.

Several problems are to be considered in the treatment of gall bladder and biliary duct cases. Most cases of cholecystitis and cholangitis are surgical, though the milder cases may be treated conservatively. We are frequently confronted with the problem, when is the best time to operate in cases which we consider surgical. In chronic cases the operation may be performed at any convenient time. In cases of cholecystitis without jaundice in which the patients are seen during attacks, it is usually best not to operate until the attack has subsided. In choosing this plan, however, the possibility of rupture of the gall bladder or extension to the pancreas must be kept in mind, either of which is a serious complication, and if the attack does not subside within the usual time it may be best to operate. If a severe degree of pancreatitis is suspected it is questionable whether or not to operate, but even with this complication, more patients will be saved by operating. The operation in cases of pancreatitis and fat necrosis must be performed with the least amount of manipulation possible. The procedure usually consists of opening and draining the gall bladder, and placing several small drains into the capsule of the pancreas where it is swollen and often edematous and necrotic. It may be necessary to op-

erate a second time after the emergency attack has subsided.

One of the most serious problems for the patient is the presence of jaundice. If there is any possible way of avoiding operation during the time the patient is jaundiced it should be done. If the jaundice is just beginning to show at the time the patient presents himself for treatment it may be best to operate without delay, but if he comes when the jaundice is decreasing it is best to wait until it has disappeared, or is at a standstill. One of the greatest dangers in operating on jaundiced patients is hemorrhage from the cut surfaces and also from the mucous membranes because of the marked change in the coagulation time, apparently produced by bile in the blood. A careful study of the coagulation time in the jaundiced individual does not always disclose the amount of risk involved. Some of the patients having a coagulation time of 20 minutes or more, and a late calcium time, may surprise the surgeon by not having any of the alarming symptoms from hemorrhage. On the other hand, a patient having a coagulation time and calcium time not far from normal, may begin to bleed soon after the operation. If it is necessary to operate during the presence of deep jaundice, as will be the case if the duct is completely and permanently obstructed, the coagulation time and general condition of the patient must first be improved as much as possible. The greatest amount of benefit will be derived from blood transfusions, and also from calcium administered intravenously. Transfusions should be given before the operation and should be continued afterward. Calcium introduced intravenously usually brings the coagulation time to normal, although it may remain in this condition only a short time.

The extensive investigations that are being carried out with regard to jaundice undoubtedly will enable us to do more for these patients in the future. All of the several functions of the liver must be greatly interfered with when the common bile duct is completely obstructed. The

secretion of bile continues to a certain extent but not under normal conditions. The urea metabolism which takes place in the liver must be greatly disturbed as well as the metabolic process with reference to the formation and storage of glycogen. In complete biliary obstruction the antitoxic power of the liver fails and the grave manifestations seen under these conditions are chiefly due to the poisons which flood the body and depend only in a small degree on the bile in the blood (Rollston). I believe it may safely be stated that the best method of combating the serious features in jaundice patients is by transfusing with whole blood and repeating if necessary. In many of our cases in which there was no bile drainage after operation, transfusion has started the flow in a short time, and usually continuance of the flow meant recovery. Furthermore if patients after common duct operations appear to be progressing satisfactorily and the flow of bile reduces to any extent it is an almost certain indication of serious trouble. The apparent correction of such difficulty is the restoration of the function of the liver or substituting for the suspended function until such time as the organ is capable of taking up its work again. We may be able to derive some help for these jaundiced patients from the fact that by the use of glycogen intravenously, Mann was able to resuscitate dogs from which he had removed the liver.

The question of whether the gall bladder should be drained or removed in cases of cholecystitis seems to settle itself when the etiology of the infection and the tissues that are involved are taken into account. It will still be necessary to drain in some of the most severely infected cases, and to remove the gall bladder later if it becomes necessary. I do not believe that it is ordinarily advisable to remove the gall bladder from jaundiced patients.

One of the recent advances in the technique of gall bladder surgery is dispensing with the abdominal drainage after removal of the viscus. Willis reported the first series of cases in which no drainage was

used. There may be a little doubt in the mind of the surgeon who has always drained following cholecystectomy, but the closure of the abdomen without drainage has been done frequently enough to demonstrate its advantages. I have closed a large number of abdomens without drainage and I believe that if clean cases are selected and no attempt at closure is made in the infected cases, the patient's immediate convalescence will be easier. There will be less chance for infection and fewer cases of stricture of the common duct. A drain in these cases is not entirely free from serious consequences and I am convinced that it is absolutely unnecessary in the majority of cases of cholecystectomy. It may be safe to close the common duct after the removal of a stone, leaving drainage through the abdominal incision down to the duct. In the majority of common duct cases, however, because of the infection, it is better to provide the liver and ducts with free drainage by placing a small tube into the duct and suturing the opening accurately around it.

SUMMARY.

Some of the problems in the successful treatment and advancement in the treatment of the gall bladder are:

1. A better knowledge of the etiology of cholecystitis and the relationship of the liver and pancreas to infections in the excretory apparatus of the liver.

2. The establishment of a syndrome for gallbladder dyspepsia and also a better clinical knowledge not only of the cases with gastric symptoms, but of those in which the gallbladder is the focus of infection for remote symptoms.

3. Some plan of improving the treatment of patients with a deep jaundice, and also of those who have an associated pancreatitis with fat necrosis.

4. The removal of the gall bladder in cases of cholecystitis although less radical operations are employed in severe cases, thus dividing the treatment into stages if necessary. The abdomen has been closed in a sufficient number of clean gall bladder cases to demonstrate that a distinct advance has been made.

Focal Infection

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The subject of focal infection is too broad to exhaust in a paper of this character, even if one were capable of doing so.

In the beginning I wish to state that I claim no originality for any of the material from which deductions were made. The majority of the paper consists of a review of a small portion of the work done by Dr. Frank Billings and his collaborators.

It has been long observed that bone fractures do not unite readily in patients who have a rheumatic history or tendency. This is especially true where the operative method was used. Long before the development of bacteriology, or even of the "germ theory," many examples of general disease were noted following trivial and serious accidental and surgical wounds, child-bed fever, etc. The cause was thought to be contamination with some substance which caused putrefaction. Discussion as to the origin of the putrefactive agents brought forth many theories until the epoch-making discovery of Semmelweis (1847) who traced the prevalence of child-bed fever in the Vienna Lying-In Hospital to contamination of the woman in labor by the unclean hands of the students and physicians fresh from the dissecting rooms.

Later it was observed that focal infection, followed by embolism, thrombosis and septicemia were successive stages which were observed in surgical and obstetrical sepsis.

E. Klebs was probably the first to recognize that local and general sepsis were due to microorganisms which he termed *microsporion septicum*. Then came the brilliant research of Pasteur and its practical application by Lister to prevent wound infection, which, in a broad sense, is a focal infection.

Co-operative laboratory and clinical research have during the last decade aroused a wider and broader interest in the sub-

ject as an etiological factor of local and general diseases.

The focus is the center or starting point of a disease process. It is a circumscribed area of tissue infected with pathogenic micro-organisms.

Primary foci usually are located in tissues communicating with a mucous or cutaneous surface. Such foci are more frequently found in alveolar abscesses, pyorrhea dentalis, tonsils and accessory sinuses. Submucous abscesses such as peritonsillar abscesses or sealed tonsillar crypts and stumps, subcutaneous abscesses, including finger and toe nails, are occasional foci.

Secondary foci are the direct result of infection from other foci through contiguous tissues or at a distance through the blood stream or lymph channels. Infected lymph nodes secondary to the primary foci named often become additional depots of focal infection. The secondary lymph node infection may persist after the distal, primary focus has been removed or has spontaneously disappeared.

It is not improbable that the bacteria of a focal infection may excite the development of additional defenses in the host and prevent the evolution of a sequential systemic disease.

Dr. William St. Lawrence of New York reported a series of ninety-four children under observation in the Children's Cardiac Clinic with an exceptional opportunity to follow up the cases for a period averaging three and a half years following tonsillectomy. The tonsils were successfully removed in 85 of these 94 cases and the 85 were carefully observed over this period of time for any recurrence of rheumatic manifestations. Fifty-four cases (60 per cent) have shown no recurrence of any kind during the entire period that has elapsed since tonsillectomy (averaging three and one-half years). Thirty-one cases have shown recurrence of some one or all of the manifestations. The manifestation of chorea in this series occurred more frequently as a recurrence when it occurred alone or in combination with sore throat and less frequently when associated

with acute rheumatic fever or joint and bone pains.

The tonsils were markedly hypertrophied in 13 per cent of the cases, moderately so in 69 per cent, and not enlarged in 18 per cent. They had been the site of recurrent inflammation before tonsillectomy in 73 per cent of the cases. "Sore throat" recurred after removal of tonsils in 7 per cent of these. At least two operations were necessary before the tonsils were completely removed in 22 per cent of the cases, and the condition remained much the same as if the operation had not been performed, as far as focal infection is concerned.

The tonsillar lymph nodes were enlarged in 100 per cent of the cases before the operation, while in 59 per cent of the cases they were impalpable afterward.

One or more attacks of acute rheumatic fever had occurred in forty-two cases before tonsillectomy and in 35 of these there was no recurrence, or 84 per cent.

One or more attacks of chorea had occurred before the removal of the tonsils in forty cases, and there was no recurrence after the operation in twenty of them, or 50 per cent.

Sixty-one showed myositis and bone or joint pains before and no recurrence in forty-seven cases, or 77 per cent.

Fifty-eight cases of organic disease of the heart were present in the series. Twelve of these patients had suffered at least one attack of cardiac failure before the tonsils were removed. One patient suffered one attack afterward.

The tolerance of exercise in the cases of cardiac disease seemed to be favorably influenced by tonsillectomy in the instances in which indications existed for the removal of the tonsils.

Nutrition and general health were improved, and intercurrent disease was less common after the tonsils were removed.

Dr. Alexander Lambert, New York, took a thousand cases of rheumatism in Bellvue Hospital to see what was the proportion with bad teeth and bad tonsils, and then a thousand cases with pneumonia without

joint affections to see how many had bad teeth and how many did not. The proportion of bad teeth in the rheumatics was 68 per cent and bad tonsils 25 per cent; among the non-rheumatics, bad teeth were present in 57 per cent and bad tonsils in 17 per cent. But in the rheumatics teeth were mentioned as good in only 6.7 per cent, and in controls in 19 per cent. It probably is true if you take it through all ages suffering from rheumatic fever, teeth are more often the cause than tonsils. In the young the tonsils are more often infected than the teeth.

I recently saw a lad suffering with acute rheumatic fever and an attack of unilateral tonsillitis at almost the same time caused by the stump of a tonsil left by a prominent and capable surgeon of the eastern part of our state. (So such cases do not all originate in Central Kansas.)

Many times we find people who are devoted to Christian Science, chiropractic, etc., and wonder how they could be. Perhaps some prominent member of our society had operated on him or a relative or friend and told them he would have no more "rheumatism" or some other promise which no one could guarantee. Until we as a whole united profession study each individual case where vague symptoms of neurasthenia, rheumatism, myositis, neuritis, herpes, eczema, asthma and other manifestations of infection or sensitization or anaphylaxis, if you please, and make more general use of the brilliant work so well opened up by Rosenow and others, along the line of affinity of certain organisms for certain tissue, we will continue to have many fakes and "fad" cults of near-doctors.

A smooth covering of mucosa may seal over infected crypts, or even abscesses in an innocent looking faucial tonsil. Likewise the stump of a tonsil, the remains of tonsillectomy, may contain infected crypts sealed by the operative scar. This may furnish a growing place for various pathogenic organisms which develop an affinity for some specific tissue or if not may get into the blood stream and attack the point

of least resistance after the bearer has been exposed to cold, exertion or other strain. Transmutation may here take place enabling the organism to develop into one of varied strains of organisms which we considered as not even being distant relatives ten years ago.

S. H. Blodgett, of Boston, recently reported four cases of pancreatic diabetes caused by infection of tonsils and claims that at least a considerable number of cases of acute pancreatic form of diabetes are due to infection of the pancreas following an infection of the tonsil. I have seen a couple of cases of chronic appendicitis accompanied with or causing arthritis which were relieved of all rheumatic tendency following the removal of this supposed focus of infection. The same may be said of some gall bladder cases.

In conclusion I wish to emphasize that these foci are usually above the neck because of infection about the roots of the teeth, in the tonsils and the nasal sinuses which is due to the particular strain of streptococcus that have an affinity for the joints. Infection in these regions is locked up quite completely and cannot drain.

Intestinal stasis is believed by many to favor the presence of pathogenic bacteria with putrefactive changes resulting, it is believed by many, in toxemia and systemic disease—anemias, chronic arthritis, Bright's disease, arterio-sclerosis and even local diseases like appendicitis, cholecystitis calculosa and peptic ulcer. Good authorities admit that there is doubtless some truth in the theory of intestinal infection but the pathogenic micro-organisms in the intestinal canal which remain there as infectious organisms, gain entrance chiefly by swallowing infectious material from the mouth, throat and nose, infected food and drink, especially milk—for milk is likely to contain streptococci which are virulent or may become so. Good sanitation and hygiene will minimize this.

I think the gist of the whole thing is that each case of obscure infection is a problem in itself and can only be solved by thorough examination which may in-

clude x-ray of teeth, cooperation with the dentist and laboratory or massage of prostate, etc. It does not mean that all tonsils shall be removed nor everyone made toothless by any means.

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Hormones and Hormone Action

C. F. NELSON, M.D., Lawrence.

Read before the Northeast Kansas Medical Society, at Leavenworth, November, 1920.

It is now some sixty years ago since the celebrated French physiologist, Claude Bernard, began publishing his observations on the properties of the fluids obtained from what we know today as the endocrine organs and gave to the world the very familiar phrase of internal secretions. Approximately forty years later Bayliss and Starling in England, seeking to unravel the mystery of the secretion of the digestive juices secreted by the pancreas, discovered anew the stimulating substances secreted by this organ and proved quite conclusively that the mechanism was not nervous but essentially chemical in its nature. They accordingly chose the term Hormone, meaning—I arouse to activity, by which to designate those substances that produce characteristic stimulating effects on an organism by chemical rather than nervous means.

The net result of the discovery by Bayliss and Starling of secretin, the specific chemical substance responsible for the secretion of the pancreatic juice, was thus to introduce into our thinking an additional element in explaining coordinating effects in the animal economy. We had become accustomed to think of the nervous system, with its brain and cord, ganglia, nerve trunks and peripheral filaments as the sole coordinating mechanism, as the central station, the relay stations, and telephone wires in which originated and which transmitted all of the messages needed for operating the complex human machine. The discovery of a chemical substance, however, that produced its characteristic effects independently of nervous control, being synthesized and activated in one organ and transmitted by means of

the blood stream to a distant organ there to produce as powerful effects as result from the stimulation of any nerve has led to an appreciation of the value of chemical correlation of many activities of the body. The hormone is a chemical messenger and acts by non-nervous means and it is to this type of correlation that I desire to invite your attention for a few brief moments.

The normal respiratory movements of the diaphragm and intercostal muscles take place in obedience to certain fixed average demands of the tissues for oxygen. To provide a sufficient oxygen supply to render possible at all times the maximal expenditure of energy for the tissues would require a very great outlay of energy by the respiratory muscles themselves or else an excessive proportion of space devoted to the performance of respiratory functions. When the customary means of ventilating the body becomes insufficient the efficiency of the ventilation is temporarily augmented by a very decided increase in the frequency and amplitude of the respiratory movements.

There is no essential anatomical connection between movements of the respiratory muscles and the skeletal muscles, and yet the performance of muscular labor augments the movements of the former. We have here an example of coordination of respiratory activities produced not by nervous control but by chemical means. It is well known that the respiratory movements of higher vertebrates are under the control of the respiratory center situated in the floor of the fourth ventricle and that this center responds to minute changes in concentration of carbon dioxide by increasing the amplitude of the respiratory movements. It has been argued, and with much justice, that carbon dioxide is not a true hormone since it is a normal product of tissue oxidations and not a substance elaborated for the specific stimulation of the respiratory center. Gley has suggested the term parahormone be used for substances of this character. It remains true, however, that respiratory activities depend

on chemical rather than nervous control and in this respect carbon dioxide assumes the role of a true chemical messenger.

The chemical correlation of certain typical digestive processes is now very well established. While it is true that the secretory activity of the gastric glands is largely under control of nervous stimuli evidence of a gastric hormone is not entirely wanting. The mechanism regulating the tone of the pyloric sphincter has been described as nervous in origin but there is no doubt that its reflex dilatation permitting the discharge of acid chyme into the small intestine, is regulated by the hydrogen ion concentration of the gastric contents in the pyloric portion of the stomach.

When the acid chyme reaches the intestine an augmented supply of pancreatic juice is produced. The mechanism of the secretion of this juice is probably the clearest example of hormone action we know since it has been proven independent of all possible nervous influence. It seems that the duodenal mucosa secretes an inactive hormone called prosecretin, this substance is activated by the acid chyme into the pancreatic hormone secretin. This latter substance is then absorbed, enters the blood stream and is conveyed to the cells of the pancreas which it arouses to activity. The chemical nature of the hormone is as yet uncertain, although the molecule is not very complex since it diffuses readily through parchment. Unlike enzymes, it may be extracted from the duodenal mucosa by boiling with acids, and may be precipitated from the solution by mercuric chloride.

The specific hormone of the adrenal glands was first isolated by Takamine in 1901 and its chemical constitution has been known now for some time. The precise effect of adrenalin upon the circulatory system is uncertain at present, although the low blood pressure in Addison's disease and the marked effect of adrenalin in raising it seems to point quite conclusively to a constant relationship between the functional activity of the suprarenals and the

maintenance of normal blood pressure. Cannon asserts that the most important function of the adrenals is to assemble a group of conditions suitable to the defense of an animal in emergencies. Fear, rage and pain lead to an increased discharge of adrenalin into the blood. The glycosuria produced by strong emotions and severe nervous strains seems also to be due to adrenalin. As a direct result of the emotional states mentioned the blood pressure is increased, the heart beat quickened, the instantly available nutritive materials become increased by a mobilization of the sugar reserves. The organism, in short, prepares itself by means of this hormone for conflict in the most efficient way possible.

The chemical correlation of function of the reproductive organs may be directly traced to various hormones elaborated by the testes, pituitary body, ovary, corpora lutea, placenta, and colostrum.

There is little doubt now entertained that the development of the secondary sexual characteristics, such as the deepening of the voice, and the growth of the beard in man, is dependent upon hormones developed, not in the spermatogenic tissues but the interstitial cells of the testes. In the female, excision of the ovary has a pronounced tendency toward the development of male characteristics, making it seem very probable that here again the absence of the proper chemical stimulators, located in the interstitial cells, is responsible for the characteristics peculiar to the female sex.

The formation of the placenta and the peculiar irritability of the uterine mucosa following ovulation is no doubt due to hormones developed by the corpora lutea, excision of these bodies prevents placental formation or leads to degeneration of placental tissue already formed. Again the development of the mammary glands in pregnancy has been traced to chemical stimulators developed in the placenta and the pituitary body. Placental extracts injected into non-pregnant females have been known to produce complete development of the gland, leading even to the production

of milk. Finally we may cite the phenomenon of hyperirritability of the uterus at term, leading to the expulsion of the fetus, as due to the presence of chemical messengers or hormones. Here a double source of hormones has been held responsible, one derived from the slightly hypertrophied pituitary body and the other from the colostrum.

The group chemical and physical changes occurring in an organism which collectively is considered under the heading of metabolic activity offers many examples of hormone action. At this time we can only speak of one chemical stimulator of metabolism—the thyroid hormone thyroxin. Thanks to the work of Kendall at the Mayo Foundation this substance has now been isolated and its chemical nature determined. We are also in possession of its iodine content and the probable location of these atoms in the thyroxin molecule. Data is also available showing the quantitative rise in the basal metabolic rate following its administration. It has been called the master hormone of the body, and such it really seems to be, presiding as it does over the potential energy content of the cell and determining the extent of its release.

In closing I cannot help again calling attention to the future significance and importance of the vast fields opening up to the profession along the lines that have been so briefly indicated in this paper. The increasing appreciation of the importance of the chemical correlation of bodily functions must of necessity mean a renewed interest and devotion to chemistry and the chemical sciences. Anatomy, and pathology from the point of view of macroscopic and microscopic appearance of lesions, have in the past been considered the fundamental prerequisites for the successful practice of medicine. The modern day insists on function more than it does on form. Perhaps the future will demand an even greater concentration on the properties and behavior of the molecule. For the day is not far distant when an enlightened people will demand of the profession of medicine not alone the success-

ful repair of a sick body; not alone the cleansing of the world's highways and byways from the germs of disease by the methods of modern preventive medicine, but the maintenance of a healthier, longer lived, and happier humanity. And the secret to this mystery will undoubtedly be found in the closer study of the chemical units composing the cell—namely, the molecule.

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Schulman in Preventive Medicine claims to have gratifying results from intramuscular injections of milk, in about five dozen cases of arthritis. The initial dose is 4 c.c. The injection is generally repeated every other day and the dose is increased 1 c.c. at each injection. Corinadsi, also, reports success from the intramuscular injection of 5 or 10 c.c. of sterilized milk in five cases of lobar or bronchopneumonia as well as in typhoid fever. Trossarello also reports great benefit from the injections of milk in twenty cases of gonococcus, ovarian and tubal. How the milk acts as a corrective therapeutic agent is not mentioned. The effect on the patient may be the unique way in which it is given; or fear of being pricked; or the psychologic effect; or the reaction it sets up expending its force on the joints. But what does it matter to the doctor, so he gets results? However, the average M.D. is curious, at times, to know how results are gotten as well as to get them. True it is dangerous for a physician to be much of a philosopher. On the theory that philosophy and medicine together are too big a load for the average man to carry at one and the same time. Experiment is the order of the day in the present age. It used to be called empiricism. It makes no difference about the name, it is a way to get at the secrets of the unknown and to make them known.

We now know that "one and one-half pints of milk or three eggs daily will supply all the phosphorus that the patient can metabolize." Fare ye well old phosphites, phosphates and phospho-lecithin.

BELL MEMORIAL HOSPITAL CLINICS

Clinic of P. T. Bohan, M.D.

Department of Medicine.

PEPTIC ULCER.

The four following cases illustrate some important features in the treatment, both medical and surgical, of peptic ulcer. Two cases have jejunal ulcer following gastroenterostomy. The third case had recurrence of symptoms in three weeks following a four weeks' alkaline treatment last winter, and the fourth case, one of high grade obstruction, developed a marked edema due to excessive alkalies.

Case 1: Mr. K. was admitted to the hospital March 1 and was discharged March 22. He is 42 years old, married, hardware merchant. His past history is negative except for repeated attacks of tonsilitis in his youth. His stomach trouble began about fifteen years ago. His symptoms consisted of burning and gnawing in the stomach two or three hours after eating and were relieved by food or soda. These symptoms came in spells of three or four weeks duration and occurred about twice a year. There was no definite seasonal relationship. In August, 1914, he had a severe hemorrhage from the stomach. In January, 1915, the Mayos did a gastroenterostomy. Following the operation he was free from symptoms until the fall of 1920, when he began to have symptoms of the same character as before the operation. On January 11, 1921, he had another severe hemorrhage—vomited blood and had a number of "tarry" stools. He was taken to a hospital in St. Joseph, Mo., and given a blood transfusion. On admittance to the Bell Hospital examination revealed hemoglobin 70 per cent, red blood cells 3,800,000, leucocytes 7,400. Physical examination was negative except for cryptic tonsils and diffuse tenderness in the epigastrium. There were no peristaltic waves. The Wassermann test was negative. The urine was negative. He was given a motor meal consisting of soup, roast beef, vegetables and a raw apple.

Two hours later he felt full and had some burning in the stomach. These symptoms lasted for a little over an hour. The stomach was aspirated seven hours after the meal was taken and four ounces (upper limit of normal two ounces) of undigested material obtained which contained free HCl. 35, total acidity 53, occult blood and lactic acid none. Fluoroscopic examination showed the gastroenterostomy patent and no barium could be forced through the pylorus, which was probably occluded when the gastroenterostomy was done. At the end of six hours 20 per cent of the barium was still in the stomach. No deformity of the stoma nor irregularity of the jejunum could be made out with the x-ray. Repeated stool examinations failed to reveal any occult blood and none was found in the stomach contents. He was given milk and cream every hour, with alkalies midway between. The stomach was aspirated at nine o'clock every night and examination of the contents showed that the acid was usually neutralized.

Ten days after the treatment was begun he developed a severe tonsillitis and the ulcer treatment was discontinued for one week. On March 17, three weeks after admission, he became dissatisfied and left the hospital. He was symptom free at this time, but an x-ray picture showed there was still 20 per cent residue of the barium at the end of six hours. He continued his treatment at home and returned for a tonsillectomy April 10. An x-ray examination with the barium meal on this date showed the stomach empty at the end of four hours. He was instructed to continue his hourly feedings and alkalies for at least four months, and the following four months milk between meals and the alkaline powder one hour after meals, one hour after the milk and at bed time.

Remarks: The fact that this patient was free from symptoms for nearly six years following the gastroenterostomy would indicate that a new ulcer had formed rather than the old one had become reactivated. As the x-ray examination showed the pylorus occluded and the

gastroenterostomy patent, even without positive x-ray evidence of jejunal ulcer, such as irregularity of the stoma or of deformity of the jejunum, the diagnosis of an ulcer in the region of the new outlet of the stomach seems justifiable. Following gastroenterostomy the ulcer bearing area is in the region of the stoma and in the jejunum instead of in the duodenum and pyloric region as in normal individuals. The reason for this seems to be obvious, as peptic ulcer forms only where gastric juice flows. Statistics show that about 5 per cent of gastroenterostomized patients develop an ulcer of the jejunum. These ulcers usually do not cause as many subjective symptoms as pyloric ulcers, but there is greater tendency to bleed or to perforate. W. J. Mayo thinks the most important etiologic factor in jejunal ulcer is the use of silk sutures. Ochsner, who uses only silk sutures, believes that the important factor is traumatism due to the use of clamps at the operation. Shelton Horsley has a number of specimens showing these ulcers opposite the mesenteric attachment, a considerable distance from the line of sutures and in a place where traumatism from the clamp would be impossible. He states it as his conviction that the important factor in jejunal ulcer is the corrosive action of the gastric juice. Hardly anyone can deny the logic of this conclusion.

The attack of tonsillitis this patient had while under treatment is indeed significant. The Mayo's found a focus of infection in nearly all patients with recurrent ulcers. The importance of removing all foci of infection in ulcer cases cannot be too strongly emphasized. Failure to do this probably accounts for a large part of the medical and surgical failures in the treatment of ulcer.

Case II: This is another case of jejunal ulcer following gastroenterostomy, coming on about six months after the operation; apparently good results from the medical treatment.

Mr. C., farmer, 49 years of age, was admitted to the hospital March 31, 1921.

and was discharged April 30. He had had no past illnesses of any importance. He has never had tonsillitis or rheumatism, but has had considerable trouble with his teeth for the past ten years and a number of them have been extracted on account of root abscesses and pyorrhea.

He began to have typical ulcer symptoms two and a half years ago. In May, 1920, he was operated upon—drainage of the gall bladder and gastroenterostomy for a duodenal ulcer. Following the operation he was symptom free until August, 1920, when he began to have a gnawing pain, rather severe, in the left side of the abdomen. At times the pain was so severe that he had to lie down, but it was usually relieved by food or soda. In January, 1921, he noticed that his stools were "tarry" for two or three weeks. About this time he became weak and has not been able to do any work since.

Examination revealed diseased gums and buried tonsils. There was diffuse tenderness in the epigastrium, but no mass could be felt and there were peristaltic waves. The blood examination revealed 3,200,000 red cells, 7,200 leucocytes and 49 per cent hemoglobin. Seven hours after the motor meal, six ounces of well digested material was aspirated which showed a total acidity of 45, free HCl. 29, and macroscopic blood. For the first two weeks the test for occult blood in the stool was usually positive, but after that time no blood was found in either the stool or stomach contents. X-ray films showed a bad pyorrhea, but no root abscesses. Fluoroscopic examination with the barium meal revealed the gastroenterostomy patent with no barium going through the pylorus. There was no retention at the end of six hours. The patient was given the Sippy treatment. The stomach was aspirated nearly every night and examination of the contents showed that the acid was usually neutralized.

Remarks: After the first week of treatment this patient had no stomach symptoms whatever. At the 9 p.m. aspiration there was seldom more than four to six ounces obtained. On the day of his dis-

charge the blood count showed, red cells 4,600,000 and hemoglobin 68 per cent. He was advised to continue his treatment at home for three to six months and that he could, in all probability, expect a cure.

Two days after getting home he developed a severe pain in his left side. His family physician was called and made a diagnosis of perforation. He was taken to St. Joseph's Hospital, Kansas City, Mo., and Dr. Howard Hill, who did the gastroenterostomy one year ago, was asked to see him. Dr. Hill reported to me quite recently that an examination at the hospital showed the pain was due to a severe left sided pleurisy and that a very careful examination, including x-ray pictures of the stomach, failed to reveal any signs of ulcer.

Case III: This is a case of high grade pyloric obstruction due to scar formation caused by an ulcer at the pyloric ring; unrelieved by eight weeks of medical treatment; marked edema due to the alkaline therapy.

Mr. R. H., farmer, 33 years of age. Admitted to the hospital March 18, 1921. He has had no past illnesses of any importance. Fourteen years ago he was kicked in the abdomen by a horse. His stomach trouble began ten years ago with burning and gnawing in the stomach three to four hours after eating. These symptoms came on in spells of two or three weeks duration and recurred about three times a year. Food or soda always gave relief. For the past year the patient has vomited at least once almost every day. Unless he induced vomiting before the evening meal he would have to vomit during the night. He has had less burning pain since the vomiting began than formerly. Recently soda gave him little or no relief and would frequently cause vomiting (a common occurrence in pyloric obstruction). He vomited a small amount of blood a few times. The appetite has always been good. There has been a loss of seven pounds in weight in the past month.

Examination shows a patient in a poor

state of nutrition. He has only fourteen teeth and most of these are decayed. The tonsils are apparently negative. Inspection of abdomen reveals marked peristaltic waves. There is neither localized nor diffuse tenderness in the epigastrium. There is no edema. The blood count is normal and the urine negative. An x-ray picture shows an enormously dilated stomach. Duodenal cap could not be seen. At the end of six hours about 80 per cent of the barium was still in the stomach. On aspiration of the stomach seven hours after a motor meal, 54 ounces of liquid material with food remnants were obtained. This showed a total acidity of 77, free HCl. 43, no lactic acid, no occult blood. In twelve stool examinations occult blood was not found a single time. This patient was given an ounce each of milk and cream every hour and an alkaline powder midway between. This powder consisted of soda and magnesium oxide and in alkalizing power represented less than 40 grains of sodium bicarbonate. On aspirating the stomach at 9 p.m. the quantity of aspirated material varied from 12 to 40 ounces and contained no free HCl. Midnight aspiration revealed 4 to 8 ounces of liquid material which showed a few points of free HCl. Twelve days after the treatment was begun it was noticed that the face was slightly edematous and within the next three days he gained eleven pounds in weight and he had a general anasarca. The diagnosis of edema due to alkalosis was made and the powders discontinued, but the hourly feedings were kept up. Much to our surprise, for three days after the powders were stopped, neither the 9 p.m. nor the midnight aspirated contents showed any free HCl. On the fourth day after the powders were discontinued, the edema had all disappeared, the weight had gone down 12 pounds and free HCl. was again found in the stomach contents. It was now recognized that the obstruction of the pylorus was probably due to scar tissue instead of swelling and pyloric spasm—the cause of obstruction in 95 per cent of cases—and that a gastro-

enterostomy would be necessary. The object of the treatment from this time on was to improve the patient's general condition, but nothing was accomplished. Hoping that duodenal feeding would improve nutrition, the Rehfuß tube was kept in the stomach for two weeks, but the tip would not pass the stenosed pylorus. On May 17 Dr. M. T. Sudler did a gastroenterostomy. Firm scar tissue was found at the pyloric ring. The patient stood the operation remarkably well. The next day he was writing letters and calling for food.

Remarks: This is a typical case of pyloric ulcer of ten years duration and with obstruction of the pylorus for over a year. Medical treatment is futile in cases where the obstruction is due to scar tissue, but this occurs, according to Sippy, in only 5 per cent of the cases. The most important feature of the case is the edema which occurred from the alkalies, which were less than the equivalent of one ounce of sodium bicarbonate in 24 hours.

It is frequently necessary in ulcer cases to give four ounces of soda, or its equivalent in some form of alkalies, to neutralize the acid. The disturbed metabolism from under-nutrition for over a year was probably a factor in the edema. Unless more alkali is given than is required to neutralize the free HCl., edema will probably not occur. The mistake was made in this case of giving more alkali than was needed. The edema in this patient would seem to confirm Fischer's theory that in alkalosis there is a disturbance in the affinity of the colloids for water the same as in acidosis.

Case IV: Ulcer of obstructive type; relief of symptoms by medical treatment; medical treatment in another hospital last winter, but symptoms recurred in three weeks; medical failure probably due to insufficient alkalies.

Mr. C. W., cook, 28 years old, was admitted to hospital March 29, 1921. During his youth he had scarlet fever, measles, small pox and typhoid fever. No history of tonsillitis. His trouble began about fifteen years ago with a gnawing pain in the stomach two hours after the noon and

evening meal. He usually obtained relief by eating, but soda seldom gave relief (probably did not take enough). His trouble came on in attacks, usually occurring in the spring or fall. His present attack began last fall and he has had no relief since excepting for eight weeks during the winter when he took milk and soda every hour or two. For the past three weeks he has had severe pain in the stomach, not relieved by either milk or soda. At times the pain was so severe that he could not sleep at night. During the winter he was in a hospital in Wichita for a month and was given the medical treatment by a surgeon. This treatment consisted of six ounces of milk every hour day and night and an alkaline powder fifteen minutes before the milk. This was continued for three weeks after going home. While on this treatment the symptoms recurred. For the past two weeks he has vomited nearly every day; a few times he vomited a considerable quantity after midnight. Two weeks ago he vomited some blood.

Physical examination was negative. The teeth were apparently perfect, the tonsils appeared normal. There was nothing found on examination of the abdomen. The Wassermann was negative, also the blood count and the urine. The Roentgenologist, Dr. J. L. McDermott, reported an irregularity of the duodenal cap. Six hour picture showed a 20 per cent residue. A motor meal was given and three hours later he vomited 23 ounces. The stomach was aspirated seven hours after the meal was taken and 18 ounces were obtained. Examination of the contents showed free HCl. 50, total acidity 78 and some bright red blood. He was given the Sippy treatment. The stomach was aspirated every night at 9 p.m., and a number of times at midnight. More than two ounces were never obtained at the midnight aspiration. In spite of the usual dosage of alkalies the free HCl. in the 9 p.m. aspiration was high, 60 to 80 points. The alkalies were then pushed and it was found that he required the equivalent of 150 grains of sodium bicarbonate an hour in order to

neutralize the acid. As soon as enough alkali was given to neutralize the acid he became symptom free and remained so until his discharge from the hospital on May 2. A motor meal was given on April 3, one week after the treatment was begun, and seven hours later only three ounces could be aspirated. An x-ray picture on April 16 showed no barium residue at the end of six hours.

Remarks: There are two very important points in this case: first, the recurrence of symptoms three weeks after his "medical treatment" last winter, and second, the large amount of alkalies required to neutralize the acid. Some surgeons are inclined to assume that a restriction of diet and a little soda now and then means the medical treatment. Moynihan, who advocated the surgical treatment for all ulcer cases a few years ago, now says that "no patient should be operated upon who has not had the right kind of medical treatment given in the right way." In the treatment of ulcer, unless enough alkalies are given to keep the acid neutralized the greater part of the time, the ulcer will not heal. Gastric juice with 20 points of free HCl. will retard the healing of an ulcer just as much as if it contained 50 points. The amount of alkali required varies and can be determined only by frequent examinations of the stomach contents. This patient stated that his stomach was aspirated only once or twice during his month's treatment last winter. As we found that it required the equivalent of four ounces of soda in twenty-four hours to neutralize the acid, it is a justifiable assumption that he did not have enough alkalies. The danger of an excess of alkalies is illustrated by the edema that developed in the previous patient on less than one-fourth the alkali required to neutralize the acid in this patient.

————— R —————

Old friends keep passing away silently and seemingly without any regret. Else why so many dry cheeks and waterless eyes?

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

ASSOCIATE EDITORS—L. W. SHANNON, C. C. GODDARD, P. S. MITCHELL, O. P. DAVIS, G. A. BLASDEL, E. S. EDGERTON, E. G. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, W. F. FEE.

Subscription Rates: \$2.00 per year, 20c single copy. Advertising rates furnished promptly on application.

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An Appeal to Members

Two thousand members for 1921. That is our slogan. If any member knowing of an eligible doctor who would make a desirable member, will make it his duty to solicit his membership for the Kansas Medical Society by explaining the good to be derived from it, and secure the application at once, we will have no difficulty in attaining this end. Your assistance is earnestly requested.

WILL YOU HELP MAKE THE KANSAS MEDICAL SOCIETY TWO THOUSAND STRONG?

Yours fraternally,
J. F. HASSIG, Secretary.

-----R-----

Faith

When mystery has lost its charm, when hope for the miraculous has been daunted by accurate knowledge of natural laws, when faith in the unseen and the unknown has been supplanted by self confidence and self dependence; then will scientific medicine have reached a period in its development where both the function and the growth of animal tissues may be controlled with unerring certainty.

Not that the medical profession is pervaded with superstitious fancies, but until science has solved the problem of repairing what the surgeon must now remove, or at

least, preventing those structural changes which lead to disfunction and degeneration, the people will delude themselves with the hope of miraculous cures or the efficacy of mysterious methods of treatment. As long as medical men are fallible, as long as errors in diagnosis and prognosis are made, just so long will there be occasional justification for their faith.

One cure at the faith healer's hands counterbalances a hundred failures, while one failure in the doctor's hands counterbalances a hundred cures.

Among the hundreds of hopeless invalids that flock to the faith healer's mission there are surely one or two who have been condemned by a faulty diagnosis and an erring prognosis—one or two who need but the confident assurance of a masterful man to put them on their feet again. Such instances do occur and occurring supply the sustenance upon which the faith healer survives—not only the faith healers but all other healers that prey upon the credulity of the unfortunate.

A few years of educating the people along medical lines will not remove the impression made by centuries of superstition. Nor does our efforts at education appear to have accomplished much in this direction, if we can judge by the rapid increase of the various kinds of drugless healers and the manner in which they thrive. On the other hand, if we judge by the enthusiastic readiness with which the people submit to the mutilation of their mouths and throats, one must admit that at least a part of our educational propaganda has taken deep root. There is still some question if mystery more than knowledge is not responsible for this attitude of the people. Few of them grasp the significance of focal infection, but knowing that a friend was cured of rheumatism in his knee by a tonsillectomy one may resort to a similar operation in order to check a tendency to baldness.

Attempts to educate the people along these lines must not be condemned for really more has been accomplished than should be expected in so short a time. It



DR. C. S. KENNEY
President Kansas Medical Society.

is evidence of progress that people are so willing to have their tonsils removed even though they do not understand the connection between diseased tonsils and their complaints.

At the beginning of the antituberculosis campaign the people shunned examinations that might confirm their suspicions of infection, but after years of agitation they have learned that their salvation depends upon early diagnosis and early inauguration of curative measures.

Wherever scientific medicine has succeeded in demonstrating the accuracy and certainty of its methods the fanciful claims of the mystery healer—of whatever name—find no ear to hear.

R

Proceedings of Fifty-fifth Annual Meeting of the Kansas Medical Society, Held at Wichita, Kansas, April 26, 27, 28, 1921

MEETING OF THE COUNCIL.

The Council of the Kansas Medical Society met in the Commercial Club Tuesday, April 26, 1921, at 8:45 a.m. Present: Dr. C. Klippel, president; Dr. J. F. Hassig, secretary, and Dr. W. E. McVey, editor of the Journal, and the following named Councilors: Dr. L. W. Shannon, Hiawatha; Dr. C. C. Goddard, Leavenworth; Dr. P. S. Mitchell, Iola; Dr. O. P. Davis, Topeka; Dr. G. A. Blasdel, Hutchinson; Dr. E. S. Edgerton, Wichita; Dr. H. N. Moses, Salina; Dr. C. S. Kenney, Norton, and Dr. J. A. Dillon, Larned.

Dr. McVey, editor of the Journal, submitted the following reports:

The Council of the Kansas Medical Society: The editor begs leave to submit the following report of the standing of the Journal for the year ending May 1, 1921:

Subscriptions, members (1,500).....	\$3,000.00
Subscriptions (non-members) ..	7.50
Received from advertising.....	3,871.89
Received from other sources....	197.62
Paper stock, 2,500 lbs.	387.50
Accounts due and unpaid.....	295.83
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Printing, mailing, etc.	2,615.13
Paper.	1,244.36
Postage.	120.00
Miscellaneous.	69.52
Editor's salary	1,500.00
	<hr/>
	\$5,549.01
Balance earned	<hr/>
	\$2,211.22

Having been authorized by the Council and by the House of Delegates to publish a Directory of the Physicians of Kansas, the editor has completed the work and submits the following report of expense of same with a copy of the Directory:

Advance subscriptions (\$2) 928.	\$1,856.00
	<hr/>
Printing and binding 1,000 copies	1,077.94
Clerk hire	460.00
Type metal	129.25
Postage.	72.50
Stationery, etc.	49.29
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	\$1,788.98
Balance.	<hr/>
	\$ 67.02

Having been authorized by the Council and the House of Delegates to establish and conduct a Credit and Collection Bureau, the editor submits herewith a report of same for the year ending April 22, 1921:

Received from commissions....	\$ 184.75
Due on commissions	61.14
	<hr/>
	\$ 245.89
Clerk hire	460.00
Postage.	72.50
Stationery, etc.	56.50
Miscellaneous.	8.10
	<hr/>
	597.10
Deficit.	<hr/>
	351.21
Number of accounts	1,267
Amount of accounts received..	\$31,374.40
Amount collected	2,670.90
Discounts and reductions	589.00
Debtors, addresses unknown ..	299
Amount of accounts same....	6,509.01
Doctors represented	60
Accounts to attorney	6

Statement of receipts and disbursements by the editor for the Journal, the Directory and the Credit and Collection Bureau:

Received from the Society.....	\$1,940.21
Received from advertising	3,871.89
Received from C. & C. Bureau..	184.73
Received from Directory	12.00
Received from other sources....	205.12
	<hr/>
	\$6,213.95
Expended for printing Journal..	\$2,615.13
Expended for miscel., Journal...	69.52
Expended for paper, Journal....	1,244.36
Expended for postage (all)	265.00
Expended for clerk hire (all)...	920.00
Expended for stationery etc....	113.89
Expended for printing Directory and metal	1,207.23
Expended for equipment	202.31
Expended for editor's salary ...	1,500.00
	<hr/>
	\$8,137.40
Deficit, amount due editor..	<hr/>
	\$1,923.45

These reports were accepted and placed on file, and a motion was made and carried that the deficit, \$1,923.45, due the editor, Dr. W. E. McVey, be allowed, and

the secretary instructed to draw a warrant for the amount.

Meeting adjourned, subject to call of the president.

MEETING OF THE HOUSE OF DELEGATES,
APRIL 26, 1921. . .

Meeting was called to order by the president, Dr. C. Klippel, at 6:30 p.m. Owing to the lateness of the hour, motion was made and carried to adjourn to meet the following day at 1:30 p.m., meeting place to be announced the following morning.

MEETING OF THE HOUSE OF DELEGATES,
APRIL 27, 1921.

Meeting was called to order by the president, Dr. C. Klippel, at 1:30 p.m., in the Directors' Room of the Wichita Club. By consent of the House reading of the minutes of the last meeting was dispensed with. Then followed the reports of the Secretary, Treasurer and Board of Defense Chairman. On motion the Councilors were permitted to hand or mail their reports to the Secretary. Dr. Axtell, chairman of Committee on Public Policy and Legislation, submitted a verbal report on the work done by his committee, which was accepted. The Committee on Scientific Work submitted the program as evidence of their activity. Report of Dr. E. E. Liggett, chairman of Committee on Necrology, which was read before the General Session, was approved.

Dr. Geo. M. Gray, chairman of the Committee on Hospital Survey, submitted a report, which was read by the Secretary and placed on file. Dr. Lindsay, chairman of the Committee on Medical History, made a verbal report of his committee's work, which was accepted. The Committee on Arrangements made a verbal report, accepted.

The rejection of four applications for membership in Labette County Medical Society was brought before the House, and on motion was referred to Dr. P. S. Mitchell, Councilor of the Third District.

The Secretary was instructed to issue charters to the following County Societies: Finney, Meade-Seward, Butler and Gray.

The following resolution was submitted: That Section 14, Chapter X, of the By-laws be amended by inserting the word "February" for the word "April" in the third line of said section.

Motion was made that the number of delegates from each County Society to the annual meeting be based on the preceding year's membership. Motion was lost.

Motion was made that the scientific program be divided into three sections, viz: Surgery and Obstetrics, Medicine, and Eye, Ear, Nose and Throat. Motion was lost.

The candidacy of Dr. C. S. Huffman of Columbus for Governor of Kansas was unanimously endorsed.

Under the head of New Business, Dr. H. R. Ross, Secretary of Rice County Medical Society, introduced resolutions, accompanied by evidence in the form of affidavits, which were referred to the Council.

SECRETARY'S REPORT.

To the House of Delegates:

I desire to submit the following report for the year ending April 26, 1921:

Financial Report.

Balance on hand May 4, 1920,	\$11,131.96,	divided as follows:
Medical defense	\$3,609.84	
General fund	7,522.12	
Total		\$11,131.96
Received from all sources for year ending April 26, 1921:		
Dues from members	\$4,863.00	
Received from editor	360.43	
Interest on Liberty Loan, reported by Dr. Munn	155.62	
Total amount received	\$5,379.05	
Total		\$16,511.01
Amount paid out for year ending April 26, 1921:		
Medical defense	\$1,458.35	
General fund	3,616.35	
Total expenditures	\$5,074.70	
Bal. on hand April 26, 1921		\$11,436.31
Statement of how the two funds stand:		
Medical defense	\$3,772.49	
General fund	7,663.82	
Total		\$11,436.31

I am pleased to report a most successful year for the Kansas Medical Society from the standpoint of membership. Not only have we retrieved the loss incurred by the war, but now have a membership of 1,537, an increase of 289 over last year, and as far as I can find, the largest membership ever enjoyed by the Society. This is due

to the activity of the county secretaries, which was stimulated by a meeting of all county secretaries at the May meeting last year, and so gratifying has been the result that we have called another meeting this year.

Let our slogan be 2,000 members at the end of the year 1921. We can do this with the concerted efforts of the secretaries and the cooperation of the members.

We have, according to the A. M. A. Directory just issued, 2,550 doctors in Kansas, and while all may not be eligible or desirable for membership, we feel that we are not setting the mark too high when we say 2,000 members for 1921.

As a further indication of the activities of the different societies, I want to say that it was much easier to prepare the program for three days this year than it was to fill out for a two-day meeting last year, owing to the generous response of the members consenting to present papers at the meeting. In fact, the great difficulty has been to arrange the program so as to give each of the speakers a place.

Concerning the financial report it may seem to many of you that with the increase of membership there should be a greater increase in the treasury, but the expenditures have exceeded those of last year by \$384.97. However, these are readily accounted for when you take into consideration that we have paid \$212 more into the Medical Defense Fund. Also the publication of the Kansas Medical Directory and instituting the Collection Bureau—which are a credit to the editor of the Journal and a benefit to the Society—have cost \$440.21, and the cost of the programs for both last year and this year is included in these disbursements. While the Journal, owing to the increase in the cost of paper and labor, has not been able to add to the increase of the treasury by a difference of \$326.00. less than last year.

So you can readily see why the financial increase has not been greater, but I am sure you will agree with us that the money has been well spent in the interest of the Society, and that next year will

show the benefits reaped. This Medical Directory will be a source of revenue to the Society, as each copy sells for \$2.00, and over 925 of them have already been ordered. We leave it to you to figure what the total amount will be when every member possesses a copy, as each member should do.

I trust that you will all feel the same satisfaction that I do in this prosperous year for the Kansas Medical Society.

I want to thank our President, Dr. Klipfel, for his cooperation in all matters pertaining to the Society, and each and every Secretary for his able assistance, not only in the preparation of the program, but for his interest and efforts throughout the year in promoting the welfare of the Society; and to the honored guests and members we wish to express our thanks and appreciation of their kindness in giving us these interesting and valuable papers.

Let us remember our slogan, 2,000 members for 1921, and with your help this goal can be reached.

Respectfully submitted,

J. F. HASSIG, Secretary.

Accepted and placed on file.

TREASURER'S REPORT.

To the House of Delegates:

I desire to submit the following report for the year beginning May 5, 1920, and ending April 25, 1921:

Cash on hand May 5, 1920....	\$11,131.96	
Cash received from secretary.	5,223.43	
Cash received as interest	155.62	
Cash from all sources		\$16,511.01
Cash paid out since May 5, 1920:		
General fund	\$ 3,616.35	
Defense fund	1,458.35	
Total cash paid out		\$ 5,074.70
Total funds on hand		\$11,436.31
Cash invested in Government bonds:		
Second Liberty Loan	\$3,000.00	
Third Liberty Loan	1,500.00	
Total amt. Government bonds		4,500.00
Total amt. subject to check..		6,936.31

L. H. MUNN, Treasurer.

Report accepted and placed on file.

REPORT OF THE MEDICAL DEFENSE BOARD.

To the Council and House of Delegates:

Your Medical Defense Board begs to report that the past year has been very sat-

isfactory, in that fewer cases have been brought against our members than usual. Also, in that about the usual good fortune has followed our efforts to defend in the cases brought to issue.

The report of our attorney, herewith submitted, is an interesting summary of the activities of the Board, and is to be taken as a part of this report.

The following is an abstract of the expenditures:

E. D. McKEEVER.

No. 1.	June 3—Salary, May, \$75.00; six days, Wash. v. Silverthorne, \$120.00.	\$ 195.00
No. 2.	June 29—Exp. and per diem, Foreman v. Surber	131.44
No. 3.	July 26—Salary for June	75.00
No. 4.	Aug. 6—Salary for July	75.00
No. 5.	Sept. 9—Salary for August, \$75; exp. and per diem, Russell vs. Newman, \$37.05	112.05
No. 6.	Sept. 24—Exp. and per diem, Russell vs. Newman	35.89
No. 7.	Oct. 11—Salary for September.	75.00
No. 8.	Nov. 15—Salary for October	75.00
No. 9.	Dec. 17—Salary for November, \$75; trip to Independence, \$57.70.	132.70
No. 10.	Dec. 29—Exp. and per diem (five days), Winfield and Md. Val.	142.76
No. 11.	Jan. 3—Salary for December	75.00
No. 12.	Jan. 13—Telephones and teleg's.	9.25
No. 13.	Feb. 7—Salary for January, \$75; exp. and per diem, Foreman vs. Surber, \$99.26	174.26
No. 14.	March 14—Salary for February.	75.00
No. 15.	April 1—Salary for March	75.00

Total. \$1,458.35

Respectfully submitted,

O. P. DAVIS, Chairman.

D. R. STONER.

REPORT OF E. D. M'KEEVER, ATTORNEY FOR
THE DEFENSE BOARD.

For some reason since my last report very few new cases have been filed against the members of the State Medical Society. About five cases that I know of have been threatened but have never been filed. We learned in advance that the suits were contemplated, and investigated, and in some of the cases the parties, or their counsel, were made to see that their case was without merit.

The following cases have been disposed of during the year:

Washington vs. Silverthorne, Shawnee County.

This was a suit for \$27,500 damages,

and arose on account of the non-union of a broken ankle, which later resulted in amputation at the hands of other surgeons. This was the most vigorously contested case that I have ever had for the Medical Society. The trial lasted about six days, and the plaintiff had all the scenery incident to cases of that kind, together with considerable perjured and highly colored testimony. However, at the end of the trial the jury returned a verdict for the doctor.

Clement vs. Young, Cowley County.

Although this case has been pending for some time, the plaintiff made an affidavit that she had been led to bring this suit against her will, and that it was without merit. This affidavit was filed and the court dismissed the case over the protest of her attorneys, who did not seem to agree with her.

Mahaney vs. Tufts, Cowley County.

This case went to trial and after the plaintiff rested, the court was ready to sustain a demurrer to the evidence, and take it from the jury, when the attorney for the plaintiff begged for a continuance, and the court granted the continuance, and assessed the costs against the plaintiff. Nothing has been heard of the case since, and I am inclined to think that it will not be pressed further, as they can not find any evidence to add to that which they have already introduced.

Russell vs. Newman, Young and Payne, Linn County.

The three defendants in this case are among the leading physicians and surgeons of Ft. Scott. Dr. Newman has considerable practice in Linn County, and when he was over there one day, he was sued, together with Drs. Young and Payne. This was the case where the defendants were charged with leaving a sponge in the kidney cavity sixty-nine days. This was a hard fought case, and the plaintiff's case was in the hands of able counsel. At the close of the evidence, the court sustained a demurrer to the evidence, and was starting to take it from the jury, when plain-

tiff's counsel asked to open up the case and introduce more evidence, which the court granted. After the introduction of this evidence, the court again started to sustain a demurrer to the evidence, and the plaintiff dismissed the case without prejudice. I do not look for this case ever to be filed again, as I feel certain that they can not find any new evidence to support their case. I felt quite satisfied with this result for the reason that these sponge cases are the most difficult ones that we have to deal with.

Foreman vs. Surber, Montgomery County.

This is the first case in the history of my connection with the Defense Board that I have to admit defeat, so far. Dr. Surber, who is one of the leading surgeons of Southern Kansas and a man of great ability in his profession, got into trouble by being too accommodating. Foreman, who is a tool dresser, broke his arm in the oil fields of Augusta, and first went to Dr. Hill, of Augusta, who reduced the fracture, and then went immediately to Independence, because of his confidence in Dr. Surber, and turned the case over to Dr. Surber. The plaintiff had read some doctor books, and claimed to know considerable about surgery himself. After the bone was set, while it is impossible to prove, there is no doubt that Foreman continually handled and manipulated his arm, and got the bone out of alignment without the knowledge of the surgeon, and when the splint was finally taken off it was found that he had solid union, but a crooked arm. He then insisted that Dr. Surber break it over and reset it, which was finally done by Dr. Surber and Dr. DeMotte. Dr. Surber then was compelled to go to the hospital on his own account, and was for some time unable to give attention to the injury. The result was non-union. That was about three years ago, and Foreman has carefully nursed this arm and has apparently never seen any other surgeon, so that the arm is atrophied. There is a hinge in the upper arm at the point of fracture, and the arm introduced in evidence is a very ugly looking exhibit. Foreman and his

wife are experts in telling lurid stories of neglect on the part of surgeon, which is all imaginary, but nevertheless impressed the jury. In the first trial of this case the jury hung, but in the second trial a verdict of \$3,000 was returned against Dr. Surber. This case will be appealed to the Supreme Court with good prospects of reversal, as the medical testimony was exceedingly weak.

Hamblen vs. Bailey, Finney County.

This case has been pending for some time and continued two or three times. Dr. Bailey at the time of the alleged malpractice was not a member of the Medical Society, but had been before and has since become a member. He states that he lapsed only while in military service, and we thought under the circumstances that he should be assisted.

Moody vs. Wickersham, Montgomery County.

This is an old case which was recently brought to our attention. It seems that Dr. Wickersham was the county health officer of Montgomery County a couple of years ago, and the plaintiff was taken ill with the smallpox and claims mistreatment in removing her from the hotel to the pest house. She claims that the pest house was not properly equipped for patients, and that it was cold, and that she was compelled to occupy it with a male patient and other embarrassing circumstances. She also claims that she was not properly protected from the cold in being removed from the hotel. The suit was originally brought against Dr. Wickersham and other county officers, and a demurrer was twice sustained to the petition. It finally ended by Dr. Wickersham being the only party left, and he then asked us for assistance. There is some question under the rules of the Defense Board whether he is entitled to assistance, but I have recommended that the rules be waived and he be given assistance at the trial, and it is my expectation to be present when the case is tried.

The case of Rainey vs. Nevitt, in Allen County, which was decided in our favor

the year before last, and reported last year, has been appealed to the Supreme Court by the plaintiff, and is set for the May term. However, they have not so far furnished any brief. If no brief is furnished, I shall ask for the dismissal of the case, or it may be continued. This is the first case that has been appealed by the plaintiff.

EDWIN D. MCKEEVER, Attorney.

COUNCILORS' REPORTS.

Dr. L. W. Shannon, Councilor First District, submitted the following report:

To the House of Delegates: As Councilor of First District, I beg to submit the following report: All the counties in the First District are organized and all have 100 per cent membership of the active members of the counties except Nemaha County. Nemaha County is reported as being organized by the present secretary, but members of the profession who are not members of the Society and would like to join, are barred from membership because of a closed organization, and those who might join refuse to join for the same reason, therefore the membership is very limited. At the last report there were only three members.

Respectfully submitted,

L. W. SHANNON, Councilor.

Dr. C. C. Goddard, Councilor Second District, gave the following report:

To the House of Delegates: The component counties of the Second Councilor District have moved along harmoniously during the past year. No visitations have been made except to Wyandotte and Leavenworth, both being in healthy and active work, being blessed with exceedingly capable secretaries. No complaints have been made from any part of the district, so we consider the Second District in healthy condition as a unit of the State Society.

Respectfully submitted,

C. C. GODDARD, Councilor.

Dr. P. S. Mitchell, Councilor Third District, submitted the following report:

To the House of Delegates: I herewith submit my annual report as Councilor for

the Third District: I have repeatedly written to doctors in Elk and Chautauqua counties for reports, and inquired if I could be of service in organization, but received no response, but am informed that they are partially organized. I shall try to get these two counties to meet with ones adjoining, as they have only four to six doctors each. All other counties are well organized and doing well, with the exception of Labette, where there is considerable friction, which we hope to have ironed out before another year. Several of our counties have held post-graduate courses this last winter and spring, which have created a great deal of interest. Allen, my home county, has maintained 100 per cent attendance since the holidays.

Respectfully submitted,

P. S. MITCHELL, Councilor.

Dr. O. P. Davis, Councilor Fourth District, gave the following report:

The Fourth District is in about the same substantial condition as was reported a year ago. The counties of the district are, with the exception of Geary, grouped into two large, thrifty organizations.

The Shawnee County Society draws its membership not only from Shawnee but also from Osage and Wabaunsee. The Lyon County Society derives members from Morris and Chase, as well as from Lyon. Geary has an organization of its own, which meets occasionally. This method of grouping counties into effective organization instead of letting each shift for itself, as weak impractical units, has been proven by experience to be the most fruitful of results. The two large organizations of the district hold regular enthusiastic meetings, bring in talent from outside to address them on frequent occasions, and are able to assert themselves effectively on any matter requiring concerted action.

Respectfully submitted,

O. P. DAVIS, Councilor.

Dr. G. A. Blasdel, Councilor Fifth District, gave the following report:

To the House of Delegates: In connection with my official duties as Councilor for the Fifth District, I beg to submit the

following report: Visited Marion County Medical Society at Marion on December 8, 1920. Found a good meeting. President McIntosh drove thirty miles through the mud to be present. Most of the registered physicians in Marion County are members of the County Society. Accompanied by Dr. C. Klippel, our State President, I visited the McPherson County Society at McPherson, December 9, 1920. The meeting was held in the new county hospital. There was a good attendance and an enthusiastic meeting, with membership well up.

The Rice County Society was officially visited on December 20, 1920, at Lyons. A good meeting and well attended. Of the twenty-two physicians registered in Rice County, seventeen belong to the Society. Visited the Harvey County Society January 3, 1921, at Newton. The meeting was held in Axtell Hospital. Membership over 100 per cent. There are some Butler County physicians belonging to this society. We had a good meeting, well attended. Dr. Klippel and myself visited the Stafford County Society at St. John on January 12, 1921. Good meeting, well attended. Membership well up.

The Pratt County Society was not visited this year. The Reno County Society meets twice a month in Hutchinson, the business meeting preceded by a dinner. These meetings are good and well attended. There are 57 licensed practitioners in Reno County, 48 of whom are members of the Society. Kiowa County is not organized. Two physicians from Kiowa County belong to the State Society.

To be brief, in going over the district I note that more interest is being shown and the meetings are more largely attended. Hope that the work started will be carried on, and that the regular medical profession will continue to put forth its very best efforts to produce the best that can be had.

Respectfully submitted,

G. A. BLASDEL, Councilor.

Dr. E. S. Edgerton, Councilor Sixth District, gave the following report:

The Sixth District has had a very satis-

factory year. Every component society has been able to hold regular meetings and with an increased membership. Butler County, which has heretofore had no county society, organized in February with an initial membership of over twenty-five fellows. I am still working on some of our other counties and hope soon to have active societies in all of them.

Respectfully submitted,

E. S. EDGERTON, Councilor.

Dr. W. F. Sawhill, Councilor Seventh District, submitted the following report:

To the House of Delegates: In making the report for the year of the Seventh District, your Councilor is hindered by an infection of the right hand which prevents his writing; consequently, he could not get the information from the different counties he desired, and only in a general way can give the condition in each county. Clay County has had meetings and keeps up its membership and is in good condition. Washington County has kept its organization and also Republic County. In Cloud County practically all the eligible men in the county have paid their dues, but no meetings have been held. The officers promise to hold a meeting soon. Jewell County has not held a meeting so far as I can learn, but keeps up its organization. Mitchell and Osborne counties have held meetings, and all eligible men are members. I have written some of the men in Rooks County to see if they couldn't get organized, but the replies were that it seemed impossible. Some have joined in adjoining counties, which is better than not belonging at all.

Respectfully submitted,

W. F. SAWHILL, Councilor.

Dr. H. N. Moses, Councilor Eighth District, submitted the following report:

To the House of Delegates: The Eighth District has been rearranged to advantage, not only as to the counties, but to the councilor; the addition of Dickinson County and the elimination of Russell County. The activity in each of the county medical societies varies. The Saline County Medical Society, the most active in the district, has

Saline and Ottawa counties to draw upon for its members, with all regular practitioners as members. Meetings are held regularly each month. The Central Kansas Medical Society receives membership from Ellsworth County. Meetings are quarterly. Lincoln County is irregular in its meetings. There is a lack of interest on the part of the majority of members. Dickinson County holds quarterly meetings. New life has been instilled into the organization by the addition to the program of speakers from out of the county. It is a demonstrated fact that greater interest is shown in the programs when out of county speakers are procured and especially when a banquet is one of the features of the program.

Respectfully submitted,

H. N. MOSES, Councilor.

Dr. C. S. Kenney, Councilor Ninth District, gave the following report:

To the House of Delegates and Council: I wish to submit the following report of the condition of the medical societies in the Ninth Councilor District, which comprises the eight northwest counties of the state. This district is proud of its two active societies—Smith County with thirteen members, and Decatur-Norton with thirty-eight, three being from adjacent districts. Three from Thomas County belong to the Tri-County, who should join this society. The first society in the district to organize was the Decatur-Norton, on August 4, 1904. It was chartered June 15, 1905. The Smith County Society was organized some time later. Both societies have been lively, and I believe such activities have been conducive to the fine feeling and hearty co-operation of the medical profession throughout the district.

Two very large meetings were held during the year, one at Colby on July 20, in conjunction with the Tenth District. Thirty were present at that meeting. The other large one was the annual meeting and banquet of the Decatur-Norton Society held at Norton on January 21, 1921. Thirty-three were present, which I believe is the high water mark for attendance in North-

west Kansas. Both programs were good, and a very interesting and profitable day was spent by all who attended these meetings.

The district now has six private hospitals in operation, one church hospital proposed, and the State Hospital for Tuberculosis.

A large per cent of the eligible physicians are members of one of these societies. The following data may be of some interest as it shows the physicians are friendly to the medical activities in this part of the state: Cheyenne County has four physicians eligible for membership and two are members, per cent 50; Rawlins County, eight with two members, per cent 25; Decatur County nine with nine members, per cent 100; Norton County twelve with ten members, per cent 83; Phillips County fifteen with nine members, per cent 60; Thomas County six with three members, per cent 50; Sherman County five with three members, per cent 60; Smith County fifteen with thirteen members, per cent 87. Total eligible in district, 74; members, 51; per cent, 69. The goal for 1921 is 100 per cent in all of the counties. This probably can not be reached, but we should have 75 per cent in the fold by January 1, 1922.

Respectfully submitted,

C. S. KENNEY, Councilor.

Dr. D. R. Stoner, Councilor Tenth District, gave the following report:

To the House of Delegates: The Tenth District includes the counties of Sheridan, Graham, Wallace, Logan, Gove, Trego, Ellis and Russell. Two active medical societies exist, the Tri-County, consisting of the counties of Sheridan, Gove, Trego, Logan, Wallace and Graham. The Central Kansas includes the counties of Ellis and Russell with Ellsworth County, which is in another district. One joint meeting, the largest and most successful meeting ever held, jointly with the Ninth District, at Colby. The Central Kansas held meetings regularly every quarter at the following places: Ellsworth, Russell, Wilson and Hays. The Tri-County has held two suc-

cessful joint meetings with the Central Kansas at Hays the past year, the largest in the history of either organization. The plans for the following year call for a joint meeting with both the Ninth Councilor District and the Eighth Councilor District. Many new physicians have located in this district the past year, and the secretaries of the several societies are making every effort to reach the maximum membership mark. In a general way, the Medical Society work and interest has been very satisfactory in this district.

Respectfully submitted,

D. R. STONER, Councilor.

Dr. J. A. Dillon, Councilor Eleventh District, submitted the following report:

To the House of Delegates: There are two organized societies in this district, Barton County and Pawnee County. No new societies were organized during the past year, nor are any contemplated for the present year. All counties show a progressive activity with the exception of Edwards, and we look for the profession of this county to get in line the present year. Am sending a personal letter to each non-member of the society.

Respectfully submitted,

J. A. DILLON, Councilor.

Dr. William F. Fee, Councilor Twelfth District, submitted the following report:

To the House of Delegates: As Councilor of the Twelfth District, I have the honor to report progress, practically all of the Twelfth District is organized into medical societies. Meade-Seward Medical Society have at the present time all of the eligible men in their counties members of the society. As my district comprises a very large area, I have not been able to visit all of the district during the past year, but hope to this coming year.

I endeavored to organize a society including part of Gray, Haskell, Stevens, Morton and Grant counties last year, but failed, as I could not get enough men interested to do so, but think I will be able to do it this year.

It would seem to me that the defense fund of our society ought to be sufficient

alone, if nothing else, to warrant any physician to seek membership in the society, and I am well pleased with the growth the society has made during the past year, and hope for even greater for the coming year.

I hold it an honor to be councilor for this district, and shall do all I can to get every eligible man in this district into the Society.

Respectfully submitted,

WM. F. FEE, Councilor.

MEETING OF THE COUNCIL, APRIL 27, 1921.

Meeting called to order by the President, Dr. C. Klippel, at 3:15 p.m., in the Directors' Room of the Wichita Club. On motion duly made, seconded and carried, the resolutions and affidavits from Rice County Medical Society be referred to the Harvey County Medical Society by the Secretary, Dr. J. F. Hassig, requesting them to take action in accordance with the constitution and by-laws of the Kansas Medical Society at their earliest convenience and report their findings to the Secretary at once. Motion was made that the President appoint a committee of five from the Council, giving them the power to act on all business in the interim between annual meetings. Motion carried. The committee: O. P. Davis, L. H. Munn, C. C. Goddard, C. Klippel and J. F. Hassig. Meeting adjourned.

MEETING OF THE HOUSE OF DELEGATES, APRIL 28, 1921.

The House of Delegates convened Thursday at 8:30 a.m. in the Directors' Room of the Wichita Club. Called to order by the President, Dr. C. Klippel. After roll call, the following officers were elected for the ensuing year: President, Dr. C. S. Kenney, Norton; Vice President, Dr. J. G. Dorsey, Wichita; Vice President, Dr. J. R. Scott, Ottawa; Vice President, Dr. Alfred O'Donnell, Ellsworth; Treasurer, Dr. L. H. Munn, Topeka; Delegates to the American Medical Association, Dr. C. Klippel, Hutchinson, Dr. James W. May, Kansas City. The following Councilors were elected for three years: Dr. L. W. Shannon, Hia-

watha, First District; Dr. C. C. Goddard, Leavenworth, Second District; Dr. E. G. Mason, Cawker City, Seventh District; Dr. H. N. Moses, Salina, Eighth District.

No Councilor was elected for a short term for the Ninth District, there being no member present from that district.

Standing of the Council:

STANDING OF THE COUNCIL.

	Term Expires
First Dist.—Dr. L. W. Shannon, Hiawatha....	1924
Second Dist.—Dr. C. C. Goddard, Leavenworth.	1924
Third Dist.—Dr. P. S. Mitchell, Iola.....	1922
Fourth Dist.—Dr. O. P. Davis, Topeka.....	1923
Fifth Dist.—Dr. G. A. Blasdel, Hutchinson....	1923
Sixth Dist.—Dr. E. S. Edgerton, Wichita.....	1922
Seventh Dist.—Dr. E. G. Mason, Cawker City..	1924
Eighth Dist.—Dr. H. N. Moses, Salina.....	1924
Ninth Dist.—Vacant.....	1923
Tenth Dist.—Dr. D. R. Stoner, Ellis.....	1922
Eleventh Dist.—Dr. J. A. Dillon, Larned.....	1923
Twelfth Dist.—Dr. W. F. Fee, Meade.....	1922

On motion the Secretary's salary was increased to \$400.00 per year.

On motion, a rising vote of thanks was given to Dr. Klippel for his enthusiasm and energy as President, and the capable manner in which he conducted all meetings.

A motion was made and unanimously carried that a vote of thanks be extended to the Sedgwick County Medical Society for the efficient way in which they had taken care of the meeting and their generous hospitality shown us in the form of entertainment.

The following resolution was adopted, after having lain on the table for one day:

"Resolved, that Section 14, Chapter X of the By-laws be amended by inserting the word 'February' for the word 'April' in the third line of said section. Amended section will read as follows: 'Any county society which fails to pay its assessment, or make the report required, on or before the first day of February, shall be held as suspended, . . .'"

Meeting adjourned.

MEETING OF THE COUNCIL, APRIL 28, 1921.

Council met and organized, called to order by the new President, Dr. C. S. Kenney, in the Directors' Room at the Wichita Club, at 9:45 a.m. Present: President Dr. C. S. Kenney, Secretary Dr. J. F. Hassig, Editor Dr. W. E. McVey, and the following Councilors: Dr. L. W. Shannon,

Dr. P. S. Mitchell, Dr. O. P. Davis, Dr. G. A. Blasdel, Dr. E. S. Edgerton, Dr. E. G. Mason, Dr. H. N. Moses, Dr. D. R. Stoner, Dr. J. A. Dillon and Dr. W. F. Fee. Topeka was chosen as the meeting place for next year. Dr. J. A. Dillon, Larned, was elected member of the Defense Board.

Meeting adjourned.

The meeting of County Secretaries was held Wednesday, April 27, 5:30 p.m., at the Commercial Club. There were about twenty secretaries present. A general discussion was held as to how best increase the membership, and to increase the attendance at meetings of local societies, by the arrangement of attractive programs.

GENERAL MEETING.

At the hour stated on the program, the regular session of the Kansas Medical Society convened to hear the address of the President, the presentation of the numerous scientific papers, and their discussions.

An unusual feature of the session was an evening meeting, open to the general public, held April 26, which was addressed by Dr. Joseph Colt Bloodgood, Baltimore, Md., on the subject of "The Cancer Problem." This was a very interesting lecture and well attended. Dr. Bloodgood also appeared on the regular program, with Dr. E. S. Judd, Rochester, Minn., and Dr. Ernest Sachs, St. Louis, Mo., all men of national reputation, who were our guests, and together with the members who read well prepared papers, which were discussed ably by someone previously chosen by the author, made the meeting a great success. We had an attendance of 430, the largest number ever registered in the history of the Society.

The program carried out was as follows:

APRIL 26.

Report of the Necrology Committee—Dr. E. E. Liggett, Oswego.

President's Address—Dr. C. Klippel, Hutchinson.

The Modern Conception of Diabetes Mellitus—Dr. C. F. Menninger, Topeka.

Thrombosis of the Mesenteric Artery—Dr. R. H. Hertzler, Newton.

Can Standards for the Diagnosis and Treatment of Incipient Pulmonary Tuberculosis be Established?—Dr. C. S. Kenney, Norton.

Some of the Problems Involved in Surgery of the Gall Bladder and Biliary Ducts—Dr. E. S. Judd, Rochester, Minn.

Focal Infection—Dr. L. J. Wheeler, Great Bend.
 The Comparative Sequelae of Focal and Infectious Diseases—Dr. F. W. Huddleston, Liberal.
 Osteitis Fibrosa Cystica—Dr. W. D. Storrs, Topeka.
 Portable Bone Splints—Dr. R. C. Young, Arkansas City.
 Bone Tumors (lantern slide demonstration)—Dr. Joseph Colt Bloodgood, Baltimore, Md.
 The Modern Prostatectomy—Dr. Hugh Wilkinson, Kansas City.
 Post-Operative Treatment—Dr. R. W. James, Winfield.
 Classification and Treatment of Diarrhea in Infancy—Dr. Hugh L. Dwyer, Kansas City.
 Public meeting, 8:00 p.m.
 The Cancer Problem—Dr. Joseph Colt Bloodgood, Baltimore, Md.

APRIL 27.

A Very Early Case of Gonorrheal Arthritis—Dr. F. A. Trump, Ottawa.
 A New Method of Treatment for Gonorrhea in Women—Dr. M. O. Nyberg, Wichita.
 Carcinoma of the Uterus—Dr. R. C. Lowman, Kansas City.
 Anesthesia and Analgesia in Obstetrics—Dr. J. D. Clark, Wichita.
 Inversion of Uterus—Dr. J. W. Faust, Kansas City.
 Present-day Obstetrics—Dr. C. D. McKeown, Hutchinson.
 Placenta Previa—Dr. E. A. Reeves, Kansas City.
 Pituitary Extract in Obstetrics—Dr. P. S. Mitchell, Iola.
 Pelvic Cellulitis—Dr. W. J. Eilerts, El Dorado.
 Sterility in Women—Dr. J. Rotter, Parsons.
 Treatment of Septic Incomplete Abortion—Dr. W. F. Bernstorff, Pratt.
 A Technic for Leg Amputation—Dr. Thos. G. Orr, Rosedale.
 Head Injuries—Dr. Frank McKinney, Galena.
 On the Diagnostic and Operative Results of Some Neurological Conditions—Dr. Ernest Sachs, St. Louis, Mo.
 What Is Dementia Praecox?—Dr. Karl Menninger, Topeka.

APRIL 28.

Do We Profit by Our Mistakes?—Dr. W. E. Mowery, Salina.
 Group Practice—Dr. C. C. Nesselrode, Kansas City.
 How to Make the County Medical Society Attractive and Helpful—Dr. E. E. Liggett, Oswego.
 Importance of Good Office Equipment and Hospital Facilities for Those Practicing Specialties—Dr. Geo. P. McCoy, Neodesha.
 Co-operative Collections and Protection Against Dead Beats—Dr. W. E. McVey, Topeka.
 The Doctor and the Hospital—Dr. J. T. Axtell, Newton.
 Some Characters and Events in Medical History—Dr. O. R. Brittain, Salina.
 Fitter Families—Dr. Elvenor Ernest, Topeka.
 Basal Metabolism—Dr. H. N. Tihen, Wichita.
 Interrelations of the Glands of Internal Secretion—Dr. J. T. Scott, St. John.
 Blastomycosis, with Case Reports—Dr. C. R. Burkhead, Wichita.
 Diagnostic Value of Cardiac Arrhythmia—Dr. Geo. E. Paine, Hutchinson.
 Infant Feeding—Dr. E. G. Padfield, Salina.
 Congenital Pyloric Stenosis—Dr. Paul E. Belknap, Topeka.
 Whooping-Cough—Dr. R. L. von Trebra, Chetopa.
 J. F. HASSIG, Secretary.

Deaths

Robert B. English, Columbus, aged 70, died March 16, from heart disease. He was graduated from St. Louis Medical College in 1874.

George Edward Muir, Pawnee Rock, aged 52, died March 12. He was graduated from the University of Louisville, Ky., 1894.

James B. Mercer, Kansas City, aged 50, died March 17 from cerebral hemorrhage. He graduated from the Medico-Chirurgical College of Kansas City in 1905.

James McCully, Basehor, aged 53, died March 19. He graduated from the University of Kansas School of Medicine in 1906.

George Emerson, Winfield, aged 73, died April 10, from nephritis. He graduated from Albany Medical College in 1873. He was a member of the Cowley County Medical Society.

Okey Johnson Casto, Hutchinson, aged 54, died April 14. He was a graduate of the University of Louisville, Ky., in 1891, and a member of the Reno County Society.

Daniel Edward Esterly, Topeka, aged 54, died May 8. He graduated from the University of Pennsylvania, 1893. He was a member of Shawnee County Medical Society.

Richard Mowery Riegle, Hillsboro, aged 61, died April 22. He was licensed in Kansas in 1901.

Robert F. Slaughter, Tonganoxie, aged 62, died March 26, from heart disease. He graduated from the Kansas City Medical College in 1882. He was a member of Leavenworth County Society.

Burton Henry Jordon, Medicine Lodge, aged 53, died April 4. He was graduated

from the College of Physicians and Surgeons, Kansas City, Kan., in 1902. He was a captain, M. C., U. S. Army, discharged December 14, 1918.

Charles E. Pugh, Winfield, aged 61, died April 23. He graduated from the Medical College of Ohio in 1884. He was a member of Cowley County Society.

—R—

A Letter

BY THE PRODIGAL.

California has no compulsory vaccination law against small-pox. But she has a law prohibiting children attending school in case of exposure to the disease and not having been vaccinated. This hy-phenated law was made to conciliate the etherial, visionary portion of the state, called antis or anti-vaccinationists and sooners.

The state school fund, to which each district or city is entitled, depends upon the per capita daily attendance of the pupils.

There were a few cases of smallpox developed in one of the high school areas in Los Angeles recently and nine hundred high school students were prohibited from attendance, not having been vaccinated during the past year. Several thousand students in the public schools of the city have been deprived of attendance for periods of several days on account of not having been vaccinated and the schools have lost their proportionate share of the state funds for lack of their attendance.

Last week a young man (17 years old) on a motorcycle ran against a street car and fractured his patella. His mother would not let a surgeon adjust the fracture; she said God would cure her boy. After several days the mother was tried for her sanity (insanity) and the boy consented to have the knee cap adjusted. Chiropractors, Christian Scientists, and mediums and numbers in various groups of "sooners" are arrested here daily, and tried before the courts. Some of them are pinched and some go free. The State Medical Board together with the regular pro-

fession on the Pacific Coast are overworked in trying to enforce the law. It reminds one of putting a fire out at one end of a house while workmen are repairing it at the other end. Busy at both ends. It seems that superstition, the beating of tom-toms and pure 'llish ignorance of a large per cent of mankind is rampant and they will have it so.

So long as the effect of this ignorance and superstition is confined to the individual holding these tenets, the public should not worry; but when it interferes with another man it is no more a personal matter and the public must take notice and protect the innocent. Possibly it is better for the practice of regular medicine that this condition of opposition to it exists.

It shows, first, that the practice of medicine and surgery is not satisfactory to a part of the multitude, nor as exact a science (if ever to be) as mathematics or chemistry. Hence it is the incentive to approximate the goal that makes the effort worth while.

Second, it shows, also, that what is definitely and scientifically known by the few in the profession is not generally known practically by a large per cent of the mass of the profession.

Third, this lack of positive, practical scientific knowledge on the part of many practitioners results in the wrong applications of the right thing and the dire results following the practices.

Fourth, this worse than failure practice, on the part of so many good men, is the foundation and strong fortress of the dis-senter, skeptic, agnostic and charlatan and for all kinds of isms, athies and pathies to regular medicine. If the medical man knew it all there would be no opposition (probably); nothing to overcome; nothing to work for; effort would cease and the whole thing would resolve itself back into its original elements there to remain or to begin all over again. But the doctor man does not know it all and hence if he uses this opposition as a stepping stone, as a means to lift himself up higher, he can

get a better view of himself and see his defects and remedy them. For the trouble he has is not caused, so much, by the other fellow as by his own lack of stature. The opposition of the other fellow, when used as a means to an end, having set our own house in order, melts away like the frost before the morning sun. The object in view and the end to be reached is to overcome ignorance and superstition on the part of the public respecting the practice of medicine and surgery by results. And this can be done by the medical profession educating itself as a whole to the knowledge and practical application of what is known in medicine and surgery; and if not prepared to do so intelligently and successfully to let it alone and not condemn it by failure.

P. S.—If the influence of this Medical Journal would not be weakened, my ignorance exposed, and my name be a synonym for "obstructionist," I would say that, leading a life on a margin of existence, in beginning the practice of medicine again I would make a stronger fight for intelligence than for education. Keep both in mind but use more fertilizing pabulum on the former. There are many educated fools but there are no intelligent fools. Our medical "educational requirements are getting to the point of lost individuality."

Question: How can a physician comply with all of the present medical educational requirements and preserve his individuality?

Answer: He can't.

He can become a spoke in the wheel, only. However, if division, subdivision and refinements continue to be made in the medical curriculum during the next twenty-five years comparable to those of the past quarter century, there will be an end to segregation, it will peter out and the individual doctor will more nearly approximate a personality and represent an entity.

—R—

Chips

Lecithin as used in medicine is made from the yolk of the egg. A great deal of

lecithin is said to be used in the picture gallery of the brain to image consciousness.

The Simmons Hospital and training school at Lawrence has recently been purchased by Miss Mary Fowler, who has been superintendent for some time. Miss Fowler will no doubt conduct the hospital along the lines of standard efficiency.

If a doctor wants to learn the action of drugs he must use one drug at a time and accurately observe its action, tabulate the effect, analyze the results, synthesize them on his lecithin in the cerebral arch and he will be possessed of accurate and definite information worth while. The doctor who makes mono-therapy his shibboleth will overcome the Gideonites.

The doctor who operated upon himself for appendicitis died. Not from the operation, for he made an uneventful recovery. But he inadvertently "sent in his bill to himself and the shock killed him."

A post graduate school should be established for grandparents and for persons who become financially in easy circumstances and retired from physical or mental work. They are worth saving. It would, also, add to the fag end of longevity. As it is the average age of man has been lengthened by conservation at the beginning of life. Use the stuffed club of the mortician on these retired sooners and they will get a hunch on themselves.

Some of the objections to a salaried position for a young physician, beginning the practice of medicine, are (a) it favors paternalism; (b) it lessens personal responsibility; (c) it weakens initiative; (d) and it interferes more or less with the development and full rounding out of independent professional ability.

It takes 500 tons of carnotite ore to produce one grain of radium. Radium gives off three kinds of rays—called alpha, beta and gamma, two of which are high-speed particles and the third of which is light.

Radium is tested by the light it gives but this light is invisible to the eye. These high speed rays travel at the rate of 200,000 miles in one second.—Pathfinder.

The medical man can project into the future and add to his professional efficiency by expending a little of his time, labor and ability in eliminating and preventing degeneracy. This can be done by conserving the life of the unfit and render it more livable and preventing its repetition by sterilizing every one where there is a liability of reproduction. Such practice would lessen anxiety and suffering in the present generation and future generations would ever sing the doctor's praise.

An investigation was made of 1,000 normal women and 23 per cent had big feet. In 1,000 insane women 80 per cent had big feet. Of 1,000 insane men 80 per cent had little feet. Deduction—Big feet drove the women insane or the feet developed at the expense of the head. In the case of the little-footed man the head took on a mushroom growth at the expense of the feet and peacock vanity put him to the bad. This anatomico-psychic unbalancing was known to the ancients. If not, why writes the psalmist thus (Ps. xxxvi:11): "Let not the foot of pride come against me."

Genu Varum is a normal condition of the human anatomy, but is not fashionable when worn in excess. It is more common in the female, probably, than in the male. This may be accounted for because of the wider pelvis in the female than that of the male. It is not more common now than in former days. The cause of the seeming increase is due to fashion, which uncovered it. It is a harking back reminder of the Neolithic age (new rock age 10,000 B.C.), when man began to abandon all fours and walk upright and the weight of the body rested on the outer side of the foot, like that of the chimpanzee when walking upright. The diagnosis is easy. It is apparent to the most casual observer. The treatment is surgical. Its correction is becoming as fashionable as appendicitis

used to be or as amygdalectomy is in the present day. It is an additional load put upon the surgeons. There are three degrees of bow legs; minimum, medium and maximum. In addition to the appearance, in the last degree, it causes the wearer to wobble like a duck in walking. It makes it difficult also for him to negotiate a crowd. In operating in the third degree cases great care must be taken not to overdo the straightening or genu valgum may be substituted for bows. Again there is danger of throwing the weight of the body too far over on the inner side of the foot. If scissor legs are not substituted for bow-legs, flat-foot may result, or both. In the young, readjustment of the parts will be cared for by nature and bad results are less likely to follow. In maturity nature is more handicapped. The operation is becoming a fad. The fastidious ladies often put off going to a swell party or the party is put off until the hostess can have her legs straightened. It may be a blessing in disguise and an assistance to nature in widening the gulf between Neanderthal man (B.C. 50,000) and the twentieth century man by eliminating resemblances.

The apple incident brought sin into the world; and the golf the chiropractor. Golf is the monetizer of the chiropractor. The golf spine is the mute proof of the assertion. The asymmetry brought on by the game belongs to the wry neck family. It is easily diagnosed, by the chiropractor. The seat of the trouble is at the junction of the cervical and dorsal vertebra. The cause of the trouble is over developed nuchae. The ligamentum nuchae jerks the end of the spinous process, to which it is attached, sideways by a twisting movement. This tort (twist) is caused by the semi-quadruped position of the player when hitting the ball and rubbering. It causes, also, the atlas to ride the odontoid process. This is the reason why every person who plays golf or uses his neck in his business needs to have his spine readjusted from time to time. This is "Why a chiropractor."

SOCIETY NOTES

Shawnee County Medical Society.

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, June 6, at the Elk's Club.

Dr. C. C. Dennie, of Kansas City, Mo., presented an exceptionally interesting paper on "Arsphenamine Reactions."

There will be no meetings of the Society during the months of July and August.

The following resolutions were adopted on the death of Dr. D. E. Esterly:

"Resolved, that the Shawnee County Medical Society has received with profound sorrow, the announcement of the death of their fellow member, Dr. Daniel E. Esterly.

"Resolved, that in the death of Dr. Esterly, the medical profession of the State of Kansas has lost a valuable and distinguished member and co-worker, while we, as individuals, have lost a staunch and true friend.

"Resolved, that to know Dr. Esterly was to admire and revere him for his scholastic attainments, which placed him in the front ranks of his profession; for his capacity for friendship, which endeared him not only to the men with whom he worked, but with the public with whom he came in contact, and his death is keenly felt, not only by the medical profession, but by the whole community with whom he had endeared himself. And we do hereby extend to his bereaved family, the aged mother, the beloved wife and children, the brother, our most sincere and heartfelt sympathy, knowing full well what a great burden of grief they are enduring at this time.—W. F. Bowen, C. A. McGuire, Committee."

E. G. BROWN, Secretary.

Sumner County Medical Society

The Sumner County Medical Society met at the Park House, Wellington, Thursday, May 19. The program:

Part One:

Supper—7:30 p.m. sharp.

Piano—Miss Alberdine Hatcher.

Reading—Miss Ruth Martin.

Vocal solo—Mrs. J. L. Halliday.

Part Two—Genito-Urinary System:

(a) Nephritis—W. H. Neel.

Discussion led by Drs. Erickson and Axtel.

(b) Prostatic surgery and some of its problems—A. R. Hatcher.

Discussion led by Drs. Shelly and Caldwell.

(c) Syphilis in diseases of eye, ear, nose and throat—L. H. Sarchet.

Discussion led by Drs. Burgess and Hultner.

T. H. JAMIESON, Secretary.

Stafford County Medical Society

The society met in St. John at 3 p.m. Wednesday, May 11. Those in attendance were C. S. Adams, L. E. Mock, J. T. Scott, St. John; W. S. Crouch, Stafford.

The guest of the Society, Dr. H. E. Haskins, Kingman, read a paper entitled Gynecological Problems. It was a practical and very interesting presentation of a number of the usual gynecological conditions encountered in general practice, such as versions, flexions, ptosis, inflammations, etc.

Operative procedures for the relief of the different displacements were described. The care of cases of puerperal eclampsia before confinement was discussed, the author taking the position that all cases not at full term should be treated by the expectant method unless delivery could be readily and easily effected. Especially is this plan applicable in primiparæ where rapid dilatation is usually difficult and results in much damage to the mother as well as the child.

The treatment consists of control of the convulsions by morphine and ether, thorough bowel and skin elimination and supportive measures, until the establishment of normal labor.

The attendance was small but the program was none the less interesting and profitable.

Dr. Dillon of Larned will be guest of the Society at the June meeting.

J. T. SCOTT, Secretary.

Parke, Davis & Company recently issued a little reference book on Adrenalin that should be in the hands of every practitioner of medicine. It is an excellent desk companion, most conveniently arranged for ready consultation. It should be said in all fairness that Adrenalin is the original natural preparation of the active principle of the suprarenal gland. It is a vastly better product than any synthetic compound, and under present highly perfected process of manufacture it is a stable and dependable preparation of uniform strength. In specifying the original Adrenalin the physician assures himself that his results in its use will not disappoint him. We suggest that our readers send for this little book, "Adrenalin in Medicine."

The report of the Committee on Public Policy and Legislation of the Iowa State Medical Society says: "The thirty-ninth general assembly, which adjourned April 8, 1921, will go down in history as having done the least for maintenance of our present medical laws, or anything to improve them, but on the contrary, did more for drugless healing, than in any preceding session, although otherwise did much for the protection of the general public health, in fact there were more public health and welfare measures passed than there has been in the history of the state for many years. The advocates of better health laws in the past have considered that human life was of more importance than that of farm animals, and asked the legislature for pure milk for the children, and the request was turned down, but when it was demonstrated that tuberculosis in the herds was killing off the pigs which drank the same class of milk furnished the children, then the legislature had no hesitancy in making an appropriation of \$250,000 to clean up the tuberculosis from the farm, in order to save the life of the pigs; and the U. S. Government provided another \$250,000, making \$500,000 for the two-year period. A few days later the same legislature hesitated to appropriate an increase of \$5,000 to the Board of Control,

making a total of \$10,000 for an educational campaign against the ravages of tuberculosis in the human family."

Many scientists lack the library facilities which their work demands. They are compelled either to journey to distant libraries or to try to borrow books by mail. Often it is difficult for them to locate something that is badly needed, and again it may be impossible to borrow it. The Research Information Service of the National Research Council is prepared to assist investigators by locating scientific publications which are not generally or readily accessible. It will also, as is desired, have manuscripts, printed matter or illustrations copied by photostat or typewriter. The cost of copying varies from 10 to 25 cents per page. No charge is made for this service unless an advance estimate of cost has been submitted and approved by correspondent. Requests for assistance should be addressed, National Research Council, Information Service, 1701 Massachusetts Avenue, Washington, D. C.

The July issue of the Medical Review of Reviews will contain a lengthy original contribution by Mme. Curie entitled "The Radio Elements and Their Applications." It is, we believe, the first and only contribution which this noted scientist has made to an American publication and is extremely valuable. A copy of the July issue containing it will be sent gratis to any physician making the request. Address the Medical Review of Reviews, 51 East Fifty-ninth Street, New York.

—R—

Dr. W. L. Warriner of Topeka attended the reunion of the class of '88 of Northwestern University Medical School, which was held in Rochester at the home of Dr. Chas. Mayo, who was a classmate of Dr. Warriner.

LOCATION WANTED.—If any doctor knows of a good opening in a good town or some one wanting to sell out. (No real estate wanted.) Answer by letter. Lock Box 83, Elk City, Kansas.

FOR SALE—The medical library, instruments, bags and grips of the late Dr. Muir. List and information sent on request. Address Mrs. G. E. Muir, Pawnee Rock, Kan.

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On the Diagnosis and Operative Results of Some Neurological Conditions

ERNEST SACHS, M.D., F.A.C.S.

Professor of Clinical Neurological Surgery, Washington University Medical School, St. Louis, Missouri.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Several years ago I had the pleasure of attending the annual meeting of the Kansas Medical Society and on that occasion took up in a general way the subject of neurological surgery and endeavored to point out its possibilities and why the results were better than in the past. There is, however, still a rather general belief that the results in neuro-surgical cases are extremely unsatisfactory. I propose therefore with the hope of dispelling this idea to devote my remarks to some groups of cases in which the operative results are as good or better than in the average general surgical cases. But as the mere report of operative results is rather uninteresting, I shall combine with the actual report of figures some observations on some of the more interesting diagnostic features of the cases.

The two groups of conditions to be considered are, first, conditions requiring laminectomy, and secondly, cases of trigeminal neuralgia.

The first group comprises seventy laminectomies. The mortality irrespective of the type of lesion was twelve cases or seventeen per cent. Any patient who died in the hospital, irrespective of the length of time after operation, is recorded as a death.

When these deaths are analyzed, it will be seen that certain ones can in no way be attributed to the operative procedure itself, thus:

Two operations were for suppurating meningitis:

Two were for malignant disease of the

spine; one died two and one-half and the other three months after the operation;

One died of coronary artery thrombosis three weeks after operation;

One died from uraemia after an exploration for disseminated sclerosis which presented the picture of a focal spinal lesion;

One died of tuberculous meningitis.

The other five deaths were more or less due to the operation itself. It is apparent, therefore, that the operation of laminectomy itself is not a very serious one. Five deaths in seventy cases or a little over seven per cent.

When we classify these seventy cases, we find there were twenty-three cases of spinal cord tumor with a mortality of five; two of these deaths were in cases that had metastatic malignant disease and another had a coronary thrombosis three weeks after operation; eleven cases had section of the posterior spinal roots to relieve spasticity, with one death; fifteen cases were explorations on cases of spastic paraplegia without any mortality; eight cases were for fracture of the spine, no deaths; the other thirteen cases were explorations for a variety of lesions with a mortality of five. Of these, two were the cases of suppurating meningitis and a third tuberculosis.

The most instructive group of cases are the fifteen cases of spastic paraplegia that were explored, for they emphasize best my indications for laminectomy. All these cases were potentially spinal tumors, that is, every case of spastic paraplegia with a definite sensory level must be looked at from that point of view and has not been given the proper chance if it has not had the benefit of an exploration.

Much has been written about the differential diagnosis between focal spinal lesions due to tumor and those due to a myelitis, but in my experience there is no positive way of dif-

ferentiating the two conditions. It is usually said that a myelitis develops very quickly while the symptoms of a spinal tumor develop slowly. While this may be an important differential point, I have seen cases of spinal tumor that developed the picture of partial compression of the cord as quickly as any myelitis. Then again it has been claimed that the line of changing sensation is sharply defined in cases of tumor while it is indefinite and irregular in myelitis. This observation has not been confirmed by our cases, in fact, in tumors that have only caused a moderate amount of compression, the line of sensory change often is so ill defined that it can only be determined after repeated, painstaking sensory examinations. Still another point that has been mentioned as differentiating a tumor from a myelitic process is that in the former condition the symptoms are steadily progressive, but this is also not a positive differentiating sign for vascular tumors not infrequently show periods of marked remission. In view of this fact that any spastic paraplegia may be due to a tumor we feel justified in urging an exploratory laminectomy in every case in which there is evidence pointing to the level of the lesion. It will of course inevitably happen that one will perform explorations with negative findings but if the condition is clearly explained to the patient beforehand the procedure is the proper one and I have yet to see a patient who did not wish the operation performed.

The spinal tumors would in themselves furnish enough points of interest to occupy all the time allotted to me and I must restrict my remarks therefore to a few phases that have impressed me particularly. In the first place the old idea that pain is a symptom without which one would hardly dare make the diagnosis of tumor must be rejected. Only a small percentage of spinal tumors have pain. If the tumor does not press on a posterior root the entire course of the disease may be practically painless. The majority of tumors furthermore occur in the dorsal cord and the spinal roots are farther apart there than in any other portion of the cord so that a tumor may attain considerable size without involving a root. Secondly, at least in our series, tumors

of the cord proper, so called intramedullary tumors, are very rare for we had but two among twenty-three cases. Not infrequently tumors growing from the meninges indent the cord so deeply that they appear to be in the substance of the cord. This error has been made a number of times and accounts for the much larger number of intramedullary tumors that have been reported in some statistics.

The symptoms which are first observed in a spinal tumor are rather interesting. A large percentage of cases complain first of vague subjective sensations, tingling, paresthesias of various sorts or weakness in their legs without any objective evidence of loss of power. The vagueness of these initial symptoms accounts for the striking fact that these patients so commonly drift to quacks of various sorts and it is only when they develop some definite sensory disturbance or some pathological reflex that a positive diagnosis is possible. I have seen a number of cases where an early spinal tumor was suspected but since there were no definite findings the patient was advised to wait and return for further examinations. This inability to make a positive diagnosis in the earliest stages of a tumor is responsible for patients drifting about for help.

There is one other group in this series about which I would like to say a word namely the cases of fractured spine with symptoms of complete paralysis. It is impossible to tell in a given case when the paralysis is still complete whether the spinal cord has been anatomically severed or only compressed. If we wait a few days or weeks to see if the cord has any power of recovery we shall lose certain patients whose cord is being compressed by blood clots and edema. A few years ago the late Dr. Reginald Allen of Philadelphia carried out an elaborate series of experiments in animals in which he showed that one of the principal causes of compression of a cord in a fracture case was the associated hemorrhage and edema which occurred in the first few hours. In his experiments he showed that a much larger number of cases recovered in which the compression was relieved by operation than in the group that were not operated upon. On account of this admirable piece of work I believe the decision is justified to ex-

plore promptly all cases of fractured spine that have symptoms of complete compression. Of course the cases with severed cord cannot be benefited but the occasional case that will be saved from what is one of the most distressing of lingering illnesses justifies this procedure.

Coming now to the question of neuralgia of the fifth nerve. Judging by the length of time patients are permitted to suffer from this most distressing disease and the dread the patients have of consenting to an operation when that is indicated, two ideas seem still very prevalent, one that no operation permanently cures the disease, and secondly that the mortality is tremendous.

Before taking up these two points, however, let me consider some points regarding the diagnosis. What are some of the conditions that may be mistaken for true tic douloureux.

The most important one, because the most frequent, is pain associated with inflammatory disease of the accessory nasal sinuses. One of these conditions has been described by Sluder and often is spoken of as Sluder's neuralgia. In these cases injection of the sphenopalatine ganglion with alcohol relieves the pain. What the underlying pathology of these cases is is not certain and Sluder, I believe, has not reported any pathological studies on the ganglion. There are some cases that complain of pain in the distribution of the fifth nerve, usually the second branch, which are not relieved by injection of the sphenopalatine ganglion and which have none of the characteristics of a true tic douloureux pain. These cases are particularly troublesome from the point of view of treatment for they are not helped by any of the methods which relieve a true tic douloureux. I have done alcohol injections on several of these cases and though I have produced a complete anesthesia of the branch I was injecting, the patient continued to complain of pain.

Cases with migrainous attacks may at times seem to have a trigeminal pain but as a rule the pain is much more diffuse and not confined to the area of the fifth nerve.

There is another group of cases which are much rarer in which the differential diagnosis

may be difficult, namely, tumors of, or tumors pressing on, the Gasserian ganglion. In these cases the pain instead of coming in attacks as in tic douloureux is constantly present due to constant irritation from pressure on the ganglion. In addition these cases quite early in the disease develop paralysis of the muscles of mastication which are supplied by the motor branch of the fifth nerve.

Still another group of cases that Cushing has drawn attention to may be confused with a tic douloureux, namely, the pains remaining after a facial herpes zoster. I have only once encountered one of these and from Cushing's report it would seem that they are very rare. They can be relieved apparently by the same treatment that is employed for true tic douloureux.

There is still another condition that occasionally may be encountered which resembles tic douloureux, namely, facial tic which is not due to disease of the fifth nerve but apparently due to disease of the seventh nerve. I have seen one such case and operated upon it by cutting the sensory root of the fifth nerve without giving any relief and I know of nothing more disheartening than to see this poor individual with her constant suffering. Cushing has reported three such cases in two of which he operated also without relief.

We must therefore realize that there are patients who have pain in the distribution of the fifth nerve who have not a true tic douloureux though they have a neuralgia of the fifth nerve. It becomes necessary in each case therefore to make a careful study to determine the cause of the neuralgia. About the typical case of tic douloureux there is no difficulty, it is the atypical ones that one must be careful about.

The next consideration and most important one is, how is it best to deal with trigeminal neuralgia?

My custom is this, if the patient has involvement of only the second or third branch, I usually inject the nerve with 80 per cent alcohol according to the method described by Patrick and in this way give them temporary relief which lasts for varying lengths of time, six months to two years. I have injected pa-

tients repeatedly when their pain returned and then finally either because the pain had spread over the entire face, involving all three branches, or because the patients wanted permanent relief with no possibility of a recurrence, I have done the radical operation evulsing the sensory root of the Gasserian ganglion.

Regarding the alcohol injections, are there any bad results or unpleasant complications? There have been a number reported; in my own cases I have had a number of hematomas, specially after injecting the second branch, and one case of paralysis of the sixth nerve so that until the nerve recovered, which took about six months, the patient had double vision. In one case when injecting the third branch the patient developed a complete anesthesia of all branches of the fifth nerve, in other words, the alcohol had run up the nerve into the Gasserian ganglion. I know of no more terrifying experience than putting alcohol into the subarachnoid space in which the Gasserian ganglion lies. This procedure has been recommended by Haertel as a regular form of treatment but to my mind cannot be condemned too severely. The reports of Haertel's own cases should be enough to discourage any one from undertaking this procedure. In twenty-five per cent of his cases keratitis developed. Alcohol injections therefore are not without their risks and in addition it must be recalled that it only gives temporary relief.

Now, how do these results compare with those obtained after removal of the sensory root of the Gasserian ganglion. My series is a small one numbering only forty. There have been no deaths in this number but there have been a few complications. In two or three cases I injured the superior branch of the facial nerve so that the patient was unable to wrinkle his forehead on the one side. There was one case of facial paralysis which lasted for about four months but which cleared up completely and one case with some impairment of hearing on the operated side. Both of these complications are probably due to a small amount of blood getting into the posterior fossa and pressing on the nerve. In one of the earliest cases some ten years ago there was some weakness of the opposite hand and

face due to too much pressure on the brain. This I avoid now by removing cerebro-spinal fluid before retracting the brain in order to expose the ganglion. Not a single case has had return of pain and if they have, it always means an incomplete operation. I except the one case of facial spasm in which we made a wrong diagnosis. Patients have to be cautioned to take great care of their eye for there is anesthesia of the cornea so that an inflammation could readily be started up. Each patient therefore before leaving the hospital has an eye cup and is taught how to wash his eye out with salt solution. The patients are instructed to use this twice or three times a day and not to go out in windy weather unless their eye is protected by glasses. With these precautions they have no trouble. A few patients complain of the numbness of their face but practically all are among the most grateful and best satisfied patients I know.

It is therefore apparent that the radical operation for tic douloureux, the extraction of the sensory root of the Gasserian ganglion, is not the dangerous procedure it has been thought to be and has no more complications than the ordinary alcohol injection while it has the great advantage of permanently curing the patient.

—R—

Standardized Splints

R. C. YOUNG, M.D., Arkansas City.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

In view of the fact that one-fourth of all casualties in war were fractures, the Government devised twelve standard splints to be used at all times when available. These splints were made in different sizes so as to fit the men of various calibre. They were the products of Mr. Thomas and Mr. Robert Jones, British. The splints were the most adequate for the greatest number and variety of fractures that had been used up to this time.

The acid of our remarks will be to briefly repeat the therapeutics of Standardized Splints, avoiding as much as possible minute anatomy, and consider the anatomical and functional results. Bone fractures being a solution of continuity

of bone substance with its resulting deformity and disfunction, the application of the standardized splint will be considered both as a permanent and semi-permanent dressing. Two elements in standardized splints must be considered—first, ambulatory; and second, a permanent dressing. Who of us ten years ago would have considered the idea of dressing a fractured thigh without a Buck's extension? Who dreamed of reversing the weight from the end of the foot and conserving the body weight, pulling from the other end of the leg, and thus discarding a voluminous amount of mechanical apparatus which was seldom available in emergency work, even in civil life?

The main desideratum in fracture work in army practice was identical with that in industrial work today, namely the first consideration was to return the patient to duty at the earliest possible moment; second, to return him with the best anatomical as well as functional results. Especially is this paramount with the greater class of cases, inasmuch as the largest per cent of fractures are of the unprotected portions—the upper extremities—and every man's usefulness is graduated by the extent of arm power which he represents.

While every case will be a case unto itself, latitude is allowed the surgeon's good judgment, and the important factor must not be forgotten, especially in consideration of fractures of the forearm, the same as in fractures of bones in the weight-bearing portions of the body, namely the muscular attachments and action as well as the axis of the bone.

The field of bandaging outlining the dangers of too loose or too tight a bandage, together with avoiding pressure upon nerves, blood vessels and bony prominences, will not be discussed in this paper, but the remaining time will be used in the practical application of splints to the extremities.

The following are the twelve standardized splints:

1. Jones' coaptation splint.
2. Jones' shoulder splint.

3. Jones' humerus splint.
4. Thomas arm extension splint.
5. Jones' cock-up splint.
6. Jones' wrist and hand splint.
7. Thomas' knee splint.
8. Jones' leg splint.
9. Hodgkin splint.
10. Jones' ankle splint.
11. Jaw splint.
12. Bradford frame.

FRACTURES OF THE UPPER EXTREMITY.

Fractures of the clavicle generally occur in the middle third of the bone. Displacement of the proximal end is not marked, but slightly downward and inward, by action of the pectoralis muscles and the subclavicular ligaments. The distal end is displaced upward and backward by action of the trapezius muscle. *Fixation:* Caution must be taken to not place the hand on the opposite shoulder as has been heretofore taught, as it causes an overlapping of the separated ends as well as a greater deformity than would exist should the arm remain by the side. The forearm should be placed across the abdomen horizontally, the shoulders drawn back as far as possible until the ends of the bone make perfect coaptation. Place a coaptation splint across and high up onto the shoulders secured with a figure of eight bandage and a first and third roller of Sawyer.

IMPACTED FRACTURE OF SHOULDER JOINT.

The Jones shoulder splint is used in fixing this fracture. This is where the truth of the old axiom is clearly verified—self preservation the first law of nature. Tell the patient that he will have a permanent disability, a fixed joint. The dressing is simple. Abduct the arm until it is horizontal with the body, the forearm placed in a hand-shaking position, palmar surface always toward the body. When removed from the splint this is a fixed joint, but by scapular movement function is to a great extent restored and the patient will be able to comb his hair and place his hand in his own pocket.

FRACTURE OF THE SURGICAL NECK OF THE HUMERUS.

Displacement of proximal end of bone is always forward and outward; distal end inward and upward. After traction the arm is placed in a Jones' humerus extension splint and the patient allowed to be up and around at all times. Coaptation splints can be placed antero-posteriorly. Displacement and muscular action is not great in these cases and caution needs to be taken only to place a moderate amount of traction on these bones. All fractures below the surgical neck and two and a half inches above the elbow joint are fixated with coaptation splints and the Thomas arm splint.

All fractures of the lower end of the humerus (supra-condyloid, intro-condyloid or extra-condyloid) are treated with the use of the Jones elbow splint described as follows: Flat sheet iron, stubb gage No. 20, flat iron bar $\frac{1}{2}$ by 1 inch, standard gray felt $\frac{1}{4}$ inch thick. Indications: Occasionally needed for fractures in and around the elbow joint, in which location of wounds or suppuration prevents the use of acutely-flexed positions, also in joint injuries requiring more complete immobilization than is afforded by a sling. The anatomical conditions to be dealt with in elbow fractures are simple and clear. In all the elbow fractures above the articulation of the elbow joint the deformity is almost universally the same posterior backward displacement, due to the muscular action of the biceps muscle and the condyloid attachment of the muscles of the forearm. In a few words let us consider the reduction of the fracture of the elbow joint. As you already know that all fractures in this location are dressed in a single uniform position with one exception, namely fracture of the olecranon process, which is dressed in a modified extension. The forearm should be supinated to make sure of the clearing of a right of way in that direction, then the elbow fully flexed and bandaged, care being taken not to produce tight circular constriction in any part of the limb, no callous exudate can

form in the bend of the elbow and the triceps muscle forms a posterior splint.

FRACTURES OF THE FOREARM.

In fractures of the radius and ulna the thing to be feared is obstruction to supination, pronation is usually good, therefore, when breaking down the callus in resetting fractures the forearm should always be extended and supinated, thus preventing any obstruction to the right of way to the bone. The ulna can be easily outlined and care should be taken to see that this bone is perfectly straight, and no pressure made on the shaft of the radius laterally, so as to interfere with the arch of the bone, thus throwing the bone out of line and interfering with the axis at the ends of the bone, and impairing the function in the joint.

CONSTRUCTION OF HAND AND WRIST SPLINT.

Flat sheet iron, stubb gage No. 20, flat iron bars $1\frac{1}{2} \times \frac{1}{8}$ standard gage $\frac{1}{2}$ inch. Indications: In one form or another these splints will be found sufficient for the care of all wrist and hand injuries. Good function requires that all injury of these parts as well as affections producing wrist drop, be treated with the hand in the dorsal flexed position usually about 20 degrees in order to obtain the grasping powers of the fingers. For simple injuries of the wrist, hyper-extension splint is sufficient. Those complicated by extensive wounds will require the skeleton pattern which may also be used on the dorsal surface by simply bending upright, the other patterns are suitable when the hand is involved. Application: Care must be taken to fit the wrist accurately to the splint flexion, thus avoiding any possible strain to the carpal joints. To avoid the flattening of the palm with the subsequent injuries to the palmer muscles and the flattening of the palmer arch so often seen, it is necessary to be sure that the palmer splint is so cut out or shaped to prevent harmful pressure to the intrinsic muscles of the thumb and little finger. Precautions: Skin of the palm and between the fingers becomes easily macerated and the splint must

not be left on too long without changing. Whenever fingers are fixed, care must be taken to allow slight flexion at the metacarpal phalangeal joint. It will be seen by the practical application of the different splints together with the combination of splints that the twelve standardized splints will meet all emergencies for fracture dressing of all bones where splints are successfully utilized. Hand, wrist and lower forearm splints are: First, hyper-extension hand splint; second, skeleton hyper-extension hand splint; third, long hyper-extension hand splint with or without thumb splint.

While no specific splint is recommended for fixing the hand from the wrist down, it has been recommended by instructors of different fracture schools that everything be treated in a generalized manner by dressing with a soft cotton ball in the palmer surface of the hand, maintaining the proper arches and the general contour of the hand and finger.

It might be well to state that in badly contused fractures where extensive shattering of the bone has occurred and the wounds remain uninfected, best results may be obtained by the application of an elastic bandage, very lightly applied, and gentle motion produced, the secondary actions of which will be a stimulus to absorption. Results: In order to obtain a large percentage of good results two essentials must be considered. First, good anatomical results are secured. In these cases 90 per cent of good functional results will follow. If bad anatomical results are obtained only 30 per cent of good results will follow. In other words good anatomical form gives a chance of nine to one in favor of good function while bad anatomical form will be seven to three against good results. Conclusions: Diagnosis must be confirmed by the x-ray. Second, reduction, anatomical and functional results considered. Third, security without injury. Fourth, treatment hygienic and frequent observation.

The Comparative Sequelae of Contagious Disease and Focal Infection

F. W. HUDDLESTON, M.D., Liberal.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

In preparing a paper at this time it is difficult to say something that has not already been said. It suffices to say that I am not original and you will hear echoes of others in all that I have to say. Nor am I writing to instruct those who have already observed these things more closely than I, through longer and more varied experience.

We sometimes fail to observe the initiatory pathology which afterward leads to pronounced structural changes terminating in disease with a pronounced symptomatology and oftentimes fatalities that could have been prevented by proper surgery and the removal of the tissue which is the receptacle of bacteria or other irritating causes.

Some weeks ago a boy twelve years of age, pale and anaemic, of normal intelligence, fairly well developed, was brought into the hospital with the following history: Had had sore throat, not unusual, during the past four years of his life. During February had had a mild attack of scarlatina followed five weeks later by an acute attack of articular rheumatism with endocarditis and a mitral regurgitation. Treatment was prescribed for the arthritis at this time which was followed by an abatement of the rheumatic symptoms and the boy was apparently well for two weeks, then was noticed to be nervous and was brought in for further examination. At this time it was found that he had developed a well defined case of chorea. Following the history of this case we are clearly convinced that the diseased tonsil was a focus of infection, unobserved by parents or family physician, although he could have had scarlet fever without the tonsil. The things that followed as sequelae from scarlet fever were acute articular rheumatism, endocarditis, with a mitral regurgitation and chorea. The sequelae in this case, some of which are now

probably permanent, are not a result of scarlet fever, but primarily the result of the preceding focal infection of the tonsillar tissue.

The tonsil itself, whose chief function is to act as a sieve for the lymph from the head, can be accused of being the chief factor in 90 per cent of the middle ear diseases which are oftentimes followed by destruction of the ear drum and probably the destruction of the auditory nerve endings and also followed by the invasion of intruding organisms into the mastoid cells, thereby causing a mastoiditis and occasionally meningitis and more rarely abscess of the brain.

It is not unreasonable to say that, were it not for the appendix being located as it is, and being capable of holding the invading bacteria of the intestinal tract, those who are surgically inclined would not have an opportunity to observe the sequelae which follow the infection in the appendix, which are appendiceal abscesses, peritonitis both local and general, pyelitis, cystitis, dyspepsia, delayed peristalsis, adhesions, chronic constipation and resulting hemorrhoids.

It is, further, not unreasonable to say that were it not for the gall-bladder which is capable of receiving the invading organisms that may inhabit the intestinal tract, that we would be denied the pathological conditions that result from this focal point of infection and that the surgeon's field of usefulness in the right upper abdomen would become markedly imperiled and the medical man would have less use for his dyspepsia remedies and for his antifatulants, his digestants, and intestinal antiseptics. In fact it has been said by some of the most eminent authorities that chronic dyspepsia is due to one of the four causes—appendicitis, gall bladder, peptic ulcer, and gastritis only of chemical origin.

Focal infection of the mouth may be considered the beginning pathology which afterwards terminates in disease which is only observed by the man who takes care of the sequelae. But the thing we are

driving at is, that the persistent absorption of pus from the focal point of infection, namely the teeth, is responsible after due length of time for gastrointestinal disturbance, maybe endocarditis, rheumatic arthritis, nephritis and a resulting arteriosclerosis, which, in itself, is responsible for some paralytic conditions. After having been called to see an ordinary case of hemiplegia or some other form of paralysis, if we investigate as to the etiology, we can frequently discover that the cause can be traced back to some long standing focal infection which could have been removed.

One is oftentimes called upon to treat a condition which is apparently acute but after having investigated the things that are causative factors it will frequently be found that the acute condition may be traced to some long standing absorption of bacteria or their toxins which can be traced further to some focal infection which has been overlooked. Let me illustrate: Recently a case came under my observation; the patient, female, aged 33, was brought to hospital with oedema of feet and limbs, vegetative endocarditis and mitral regurgitation, which were found on first examination. Two days later there were found gangrenous areas on the left foot, gangrenous areas occurring up the limb, this condition resultant from obstruction to the femoral artery which resulting arterial inflammation was traced back to the history which is as follows: First, patient had frequent attacks of tonsillitis followed by acute attack of rheumatism, then by endocarditis, then by mitral regurgitation, then by gangrene of the left lower extremity which was due to obstruction of the artery, which in this case could be and was traced back to its real beginning, namely, the infected tonsil. This illustration is not to say that one believes that everything can be traced back to some focal point of infection, for we know the contagious diseases which are most common—measles, whooping cough, scarlet fever, diphtheria, chicken pox, and other contagious diseases—are frequently followed by sequelae and are oftentimes di-

rectly responsible for them. But after investigating the case from a standpoint of sequelae, we will find that the severity of the disease and the susceptibility of the patient have been due to the effects of some focal point of infection.

—————R—————

Cancer of the Breast—A Review of the Present Status of the Operative Treatment

ROBERT B. STEWART, M. D., Topeka, Kan.

Read before the Northeast Kansas Medical Society at Lawrence.

Many surgeons say that the incidence of breast cancer as compared with non-malignant breast disease is decreasing. The reasons given are: (1) that conditions in the female breast which formerly were considered as cancerous are now well differentiated as benign breast tumors; (2) that the campaign of educating women regarding the necessity of early treatment of any suspicious disease of the breast has led to the early discovery and treatment of benign tumors which if untreated have a tendency to develop into cancer and their early removal thus lessens the incidence of cancer. Pilcher ⁽¹⁾ remarks that it is logical to recommend removal of diseased tissue in every case where a surgeon of experience cannot with reasonable certainty say it is one of non-progressive, cystic or inflammatory induration. Conservation in this type is too prevalent. The importance of thorough recognition and treatment in the pre-cancerous stage cannot be too strongly impressed.

The commonest benign tumors of the breast come under the heads of fibro-adenomata and cyst-adenomata according to Bevan ⁽²⁾ and these are the breast lesions which most frequently come to the surgeon for treatment.

Neander of Stockholm ⁽³⁾ thinks that 75 per cent of all pathological conditions of the female breast after the age of 30 years are malignant.

Patients presenting themselves to the surgeon with tumors of the breast should be carefully studied and in late cases the chest and spine x-rayed for the detection of metastatic extension. That operations may be avoided upon cases that are inoperative.

THE RADICAL OPERATION FOR BREAST CANCER

All surgeons are not agreed upon the extent to which the axilla should be cleared and the pectoral muscles removed. Labat ⁽⁴⁾ of the French School thinks the Halstead operation mutilating and unnecessary. It suffices to remove the cellular tissues between the axillary ganglia and the tumor and to respect the pectorals. Such an operation may be done under local anesthesia.

In a case referred to by Iselin ⁽⁵⁾ a medullary cancer was simply excised without a radical operation or roentgen treatment, owing to the glands being so much involved and for such a distance; yet this woman has survived in perfect health during 13 years following operation. On the other hand Iselin has observed cases where internal metastases and local recurrences developed as late as 9 years after a thorough radical operation and raying.

Neander ⁽³⁾ found that 15 patients in whom he evacuated the supraclavicular fossa all died from cancer. Three hundred and thirty radical operations were followed by recurrence in or near the site of the cancer in 165 cases and only 19 per cent were living free from recurrence after 3 years; the figure is reduced to 16.8 per cent after the 5 year limit.

Ochsner ⁽⁶⁾ cleans out the axilla, removes the pectoralis major and the proximal end of the pectoralis minor muscle, a part of the distal end of this muscle being preserved to cover and protect the axillary vein. The cut end of the muscle is sutured to the intercostal muscles and post-operative edema is thus avoided. All fat and lymph nodes in axilla are removed, the breast wound is treated by post-operative raying and afterwards by skin-grafting.

Pilcher ⁽¹⁾ thinks that every advanced case of breast cancer should have the benefit of axillary and supraclavicular dissection as a part of the primary operation. Sherril ⁽⁷⁾ removes the axillary glands first, then the breast with the pectoralis major muscle. Sometimes a few fibers of this muscle are left above the range of the lymph nodes to secure greater mobility of the arm. Sherril has not

had a local recurrence in 10 years. His recurrences have been visceral.

Willy Meyer ⁽⁸⁾ says that the reasons why the complete excision of the pectoralis is still a mooted question seems to be twofold: 1. Because Halstead's method of operating from the sternum towards the shoulder with preservation of the clavicular portion of the great pectoral muscle and divisional dissection and resuture of the minor pectoral, gave the weight of his authority towards turning the scale to this method of operating. 2. Because the total extirpation of both pectorals was by many considered as mutilating and unnecessarily radical.

Meyer, however, considers the thorough radical operation neither mutilating nor unnecessarily radical and says that this view is now most generally accepted. The preservation of the clavicular portion of the major pectoral makes but little difference in the cosmetic effect, and the functional results in the arm after complete removal are perfect.

The operation in Meyer's view is not too radical seeing the general accepted surgical formula to completely extirpate a muscle involved in malignant disease because there is the possibility of communicating lymph vessel existing between the two portions of the pectoralis major, and, besides, infected lymph nodes are frequently encountered between and beneath the two pectoral muscles, which seems to be sufficient proof that surgery cannot be too radical in the removal of these muscles.

Although many surgeons do not remove the pectorals and yet obtain 30 to 40 per cent of recoveries lasting 3 to 5 years, the question is rather: "How many patients have developed recurrence because the removal of the involved parts was not radical enough?" The total removal of the two pectorals not only is a safeguard against local and regional recurrence, but in all probability against metastases. Their total extirpation in every radical operation is logical as a surgical procedure and should be generally adopted.

Many surgeons adopt Handley's addition to the radical operation which consists in the extirpation of the anterior sheath of the recti muscles in the triangle bounded by the ensiform process and upper portion of the two

costal arches. This necessitates placing the lower angle of the skin incision in the median line about midway between the umbilicus and lower end of the sternum instead of over the sternum.

When the operation is thoroughly radical no region of the body offers conditions more favorable for the removal of a cancer as a closed vessel than in cancer of the breast; but the surgeon must be careful to keep well outside the seat of the disease when operating.

RESULTS OF SURGICAL OPERATIONS IN THE TREATMENT OF BREAST CANCERS

Fischer ⁽⁹⁾ made personal inquiries from leading American surgeons, Deaver, Rodman, Bloodgood, Ochsner, Kelly and others, and from the data obtained from these found that permanent cures after operations for breast cancer ranged from 35 to 72 per cent.

Siirala ⁽¹⁰⁾ refers to the extraordinary value for prognosis which exists in the interval duration between the time of observation and the time of operation. Thus:

When the interval did not exceed 3 months 33.3 per cent of the operated were living.

When the interval did not exceed 6 months 25.9 per cent of the operated were living.

When the interval did not exceed 1 year 14.4 per cent of the operated were living.

When the interval exceeded 2 years 11.9 per cent of the operated were living.

Iselin's ⁽⁵⁾ investigation of 102 patients who were radically treated and received post-operative roentgen treatment showed that only 4 out of 27 patients with scirrhus cancer were alive after 5 years; of 56 patients with simple hard cancer 33 per cent were alive after 5 years or more; and of 13 with medullary cancer 10 per cent were alive from 10 to 15 years after operation. Scirrhus cancer grows slowly, does not give symptoms till far advanced and consequently does not come early to the surgeon. The small cells of scirrhus cancer spread almost continuously in all directions and thus involve the surrounding regions more readily than other cancers. Jacobson ⁽¹¹⁾ collected 3462 cases of radical operation for breast cancer. Of these 32.86 per cent were well after the 3 year period and 23.77 per cent after 5 years.

Neander of Stockholm ⁽³⁾ analyzed 427

operations for mammary cancer operated between 1910 and 1914. Three hundred and thirty radical operations were followed by recurrence in or near the site of the cancer in 165 cases and only 19 per cent were living free from recurrence after 3 years. Twenty-eight patients were thus apparently definitely cured. After the 5 year interval these figures were 16.8 per cent, and 23. The immediate operative mortality was 2.1 per cent. Oliver⁽¹²⁾ reports his experience in 100 cases. Four could not be traced; of the others, 41 survived for periods varying from 3 to 21 years after operation, but there was recurrence in 3 of these after the 3 year limit.

THE VALUE OF POST-OPERATIVE RAYING

Opinions regarding the efficacy of post-operative x-raying are divided. Perthes⁽¹³⁾ compares 88 cases rayed after mamectomy with 130 cases not given post-operative irradiation, and with 70 cases in which only inadequate exposures were given. There was recurrence within 1 year in 41 per cent, 28 per cent, and 38.5 per cent in these groups respectively, but among the recurring cases there was no local recurrence in 18.11, and 11 per cent respectively. These figures speak decisively against any improvement of the statistics from post-operative raying. The recurrences in rayed cases were almost twice as numerous as in unrayed cases, and moreover the death from internal metastases without local recurrence were four times as numerous in the rayed cases. Oliver⁽¹²⁾ says that x-raying is of no value before operation, but rather favors it post-operatively. Saberton⁽¹⁴⁾ and Jacobson⁽¹¹⁾ recommend post-operative raying. Iselin⁽⁵⁾ says that the fact that very many of the irradiated—even of those with involvement of the farthest glands in the supra-clavicular fossa—survived for longer intervals is an impressive test of the value of post-operative irradiation. Pfahler⁽¹⁵⁾ thinks that deep roentgen treatment gives a chance in the 61 per cent of recurrences following operation. When there is no glandular involvement records show that after post-operative raying the percentage of cures rises to 81 per cent and higher.

MISCELLANEOUS POINTS IN SURGICAL TECHNIQUE

Percy⁽¹⁶⁾ advocates the use of the cautery

knife instead of the cold steel because the heat disseminated by the thermo-cautery kills the germs in the infected regions. Percy has seen no untoward results from the use of heat even when large areas of the thorax, axilla and neck were denuded of their covering by the cautery.

Tansini⁽¹⁷⁾ to cover the gap left in the breast after the radical operation uses a plastic method which necessitates the cutting of a dorsal musculo-cutaneous strip which is turned over on its pedicle and covers the gap in the breast regions.

Cole of Mobile, Ala.⁽¹⁸⁾ reports radical amputation of the breast with complete axillary dissections under local anesthesia. The procedure followed that of Braun of Zwickau who did this successfully in 12 cases.

CONCLUSIONS

1. There is no middle ground in the operation for cancer of the breast. The total removal of the two pectoral muscles is absolutely essential; first, because otherwise it is not possible to do a fascial dissection of the axilla, and second, the removal of these muscles is a safeguard against local and regional recurrence, and also against metastasis.

2. It is well established that the x-ray is of great value in preventing recurrence, and it is towards the employment of this agency that we must look for a lowered percentage of recurrence. One x-ray treatment should precede the operation and intensive treatments following, covering a period of six to nine months. This should be followed as a routine procedure in all cases of cancer of the breast.

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LAW FOR THE DOCTOR

LESLIE CHILDS.

The Right of Physician to Rate Himself Relative to His Professional Standing, for the Purpose of Determining Amount of His Fee.

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It has been generally held that a physician, in the absence of a custom of his own, is entitled to compensation for professional services in accord with charges usually made for such services by other physicians of similar standing. And, in rating himself, the physician has the right to claim standing in the class to which, in his opinion, he properly belongs. If his charges are contested on the grounds that he has rated himself too highly, the burden of proving this rests upon the contestant; and, in the absence of evidence to the contrary, the physician's own valuation of the value of his services will stand.

A case on this point, in which it was sought to reduce the charges of a physician on the grounds that he was a young practitioner, and as such had no right to the fees charged by those who were older and whose reputations were established, was that of *re Percival*, 137 La., 203. The facts surrounding the case were considerably involved and have been greatly abbreviated, but in so far as material to this discussion were substantially as follows:

For some time prior to April 20, 1914, Miss Mary Percival, a wealthy resident of the city of New Orleans, had been attended professionally by an eminent neurologist. Miss Percival, not being altogether satisfied with his treatment requested Dr. John T. O'Ferrall to take charge of her case. Dr. O'Ferrall thereupon began attending her on the above mentioned date and continued in charge until June 20, 1914, when Miss Percival died.

Thereafter Dr. O'Ferrall presented a bill for \$1,500 for his services which the executor

of the Percival estate declined to acknowledge, and the doctor filed an opposition to the executor's account. The case was tried in the district court and a judgment for \$262 was rendered in favor of the doctor. From this judgment Dr. O'Ferrall appealed to the supreme court.

As the principal reason for refusing to allow the doctor's claim for \$1,500 was based upon the fact that he was a comparatively young practitioner, considerable evidence was allowed into the record bearing on his training and experience. Relative to this Dr. O'Ferrall testified, without contradiction, as follows:

" . . . That he was graduated from the medical department of Tulane University of Louisiana, in 1908; that he attended the Army Medical School in Washington City, from which he was graduated in 1909, after which he paid a short visit to New Orleans, and then served four or five months in Bellevue Hospital, in New York; that he then returned here and served five or six months as the assistant of Dr. Van Wart of this city, and then went to Winser, Miss., where he was engaged in the general practice of his profession for two years and a half, with the idea, however, of specializing in orthopedics; that he went from Winser, to Boston, Mass., where he entered the Massachusetts General Hospital in which he remained for a year, when he was graduated from the orthopedic department; and that he then spent four months visiting the important orthopedic clinics in Italy, Germany, France, and England, following which he returned to this country, and came to New Orleans in April, 1914."

Relative to the services rendered by Dr. O'Ferrall the evidence showed that he took charge and treated the case exclusively and most assiduously from April 20 to May 22. During which period he made two or three visits each day, varying in length from half an hour to several hours. He also made a number of mechanical appliances, known as "Thomas Collars," took a blood test, accompanied his patient to see an x-ray specialist, and generally devoted himself to the case.

On May 22, being unable to determine whether the disease was orthopedic or neuro-

logical, or both, he advised that another specialist be called. His advice was taken and he called Dr. Humell. Later, in consultation with Dr. Humell, it was agreed that a surgeon should be called and an operation performed. The surgeon was called and advised that the patient be removed to Touro Infirmary. Dr. O'Ferrall attended to the hospital arrangements and the patient was taken there, on June 10, after which the surgeon performed two operations with an interval of about a week between them. On June 20, after the second operation, the patient died.

Evidence bearing on the charges made by other specialists who treated Miss Percival showed that during the two months that Dr. O'Ferrall had charge of her case an eminent neurologist, Dr. Humell, and a distinguished surgeon, Dr. Matas, were called in consultation, and rendered certain services. The bill of Dr. Humell amounted to \$1,875, and that of Dr. Matas to \$1,250; both of these bills being paid without objection.

In passing upon the points raised in the record, and in particular on the cutting down of Dr. O'Ferrall's claim because he was a young practitioner, the supreme court, among other things said:

"Our learned brother (the trial judge) was also of opinion that a young practitioner has no right to charge, or expect to be paid, the fees charged by those who are older and whose reputations have been established, and hence he allowed opponent (Dr. O'Ferrall) but three dollars each for day visits, and six dollars for night visits, although, according to the evidence, the customary charges by specialists appear to be five dollars and ten dollars respectively. It may happen, however, that the knowledge of the schools goes beyond that upon which reputations have been founded, and that the later graduate, bringing, with his diploma, the latest discoveries, is more competent to deal with a particular case than the earlier, with the experience of a past generation. However that may be, any physician has the right, in the absence of a custom of his own, to charge for his visits, day or night, at least the fee sanctioned by the custom of the community in which he lives; nor is he obliged in so doing, to rate himself below the

class to which, in his opinion, he properly belongs; and in such a case the burden rests upon the patient who refuses to pay to show a better reason for such refusal than that the physician is comparatively fresh from the seats of learning. It is therefore ordered that the judgment appealed from be amended by increasing the amount to be allowed to the opponent (Dr. O'Ferrall) to \$1,500, and, as thus amended, affirmed, at the cost of the succession."

—————R—————

BELL MEMORIAL HOSPITAL CLINICS

Out-Patient Clinic of Dr. E. T. Gibson

J. H. is a Slovak packing house laborer, aged 43. He complains that he does not sleep well, has nausea and vomiting at times and fatigues easily, so that he has not been able to work for months.

Present Illness.—He has felt about as at present since Christmas 1920, since which time he has stayed home to look after the children while his wife goes out to work. He has been in two local hospitals for a week or two but was discharged unrecovered, with the diagnoses of psychoneurosis, and manic-depressive psychosis. On questioning the patient states that he attributes his condition to worry over threats to kill him which his cousin made last December. Further questioning brings out against some resistance the story that he has been rendered very unhappy and apprehensive in the last few months by repeated threats against his life by relatives and fellow workmen. While at work curses, filthy names and threats have been thrown at him. Frequently while in bed at night he has heard similar remarks from the street and sometimes in his own house, and these have frightened him very much. He has heard his wife talking with other men, and he is convinced that she has plotted against his life and has also been unfaithful to him. These threats and plots were at their worst in January, and have gradually diminished, though he still occasionally hears talking about the house, and still distrusts his cousin especially.

His wife who is an intelligent woman says that his "nervousness," fears, belief that he

was in danger of his life and that his wife is unfaithful, have been present to a greater or less degree for 12 or 13 years. About 11 years ago they became so intense and he grew so threatening that he was committed to the State Hospital at Topeka. He remained more than a year, during which time he improved somewhat, and learned to conceal his ideas. The exacerbation in December is the worst he had had since his discharge from Topeka. She says that in January he came home once or twice trembling and sweating with fright, saying he had been followed by a man in a black mask. The wife says the threats and worries are all imaginary, and that she has never been unfaithful.

Past History.—H. came to Kansas City about 23 years ago and has been working at the packing business and for grocers and butchers. His latest job was in his cousin's butcher shop. He left there because his cousin threatened to kill him, and because he got tired and nervous. He denies venereal diseases, and says he has had no severe sickness, though he has been nervous and has had stomach trouble for a number of years. He has smoked excessively since youth and has drunk whiskey and beer daily as long as he can remember, until the saloons were closed. He has never had delirium tremens. His last spree was about Christmas 1920, when he became very drunk on home brew at a relative's house.

Physical Examination.—Heart, lungs and abdomen are negative. There is a fine tremor of the outstretched fingers, the pupils are not circular and react rather slowly. Tendon reflexes are a little diminished in activity in the lower extremities. Motor nerves are normal. There is a little dulling of sensibility to light touch in the feet. Both calves are tender on deep pressure. Urine and Wassermann reactions are negative.

Mental Status.—H. is a weak, good-natured person, apparently dominated by his wife. His consciousness is clear, he is perfectly oriented, his replies to questions are to the point. He seems a little stupid and he does not recall many events in their proper sequence. He is content to be the housekeeper while his wife earns money.

The history indicates the presence of audi-

tory hallucinations, with delusions of persecution, reference and jealousy, with a fairly adequate reaction of fear and counter threats. At present these phenomena are dying out, though he still reacts at times to auditory hallucinations.

Summary.—We are dealing with a chronic psychosis of at least 12 years standing, characterized by persecutory and jealous delusions with auditory hallucinations accompanied by a partially adequate emotional reaction. At the present time there is a slight but distinct mental deterioration shown by slowness of apprehension, loss of ambition and poor memory. Physically we find sluggish pupillary reactions, fine tremors of hands, diminished sensibility in the feet and tenderness of the calves. There are subjective complaints of fatigue and indigestion, with occasional nausea. The phenomena have been variable, but never entirely absent. At present they are fading out, except for the intellectual deterioration. We have then a permanent deterioration, chronic paranoid phenomena, signs of a subacute peripheral neuritis, and the fine tremors of long standing.

Diagnosis.—There is no evidence of syphilis or arteriosclerosis. The psychoneuroses are excluded by definite hallucinations and the paranoid features, which together with the chronicity and the somatic signs rule out the manic-depressive group. The paranoid type of dementia praecox must be considered seriously, but the reactions in conduct and emotion shown by the patient is not in accordance with this psychosis. Absence of the characteristic stages of development of paraphrenia systematica rules out that condition. The history furnishes a clue to the diagnosis in the chronic alcoholism. In fact we have what is almost an experimental verification in the return of all symptoms with peripheral neuritis following the debauch of last Christmas. The clinical picture and course are entirely typical of chronic alcoholic hallucinosis.

Etiology.—The precipitating factor is alcohol. But why did H. not develop delirium tremens, or simple alcoholic deterioration, or Korsakov's psychosis, instead of this particular type? There is reason to think that a factor inherent in the patient may take part

in the production of this rather uncommon disorder, and that this factor is somehow associated with a tendency to dementia praecox. It is undeniable that in H. there is at present a slight emotional apathy, as in the latter disorder, though much less in degree. The resemblance of the early course and symptoms to paranoid dementia praecox is also apparent.

Treatment.—Alcohol will cause a return of symptoms, so that the first indication is entire abstinence. H. has felt himself the object of persecution and abuse and has lost his grip. He may not gain insight into his delusions, but they will gradually lose the first place in his consciousness, particularly if he is in different surroundings. The ideal solution would be a psychopathic hospital, where he could be built up physically and subjected to mental "orthopedics," so as again to take his place as an efficient social and economic unit. Since we have no such institution, the nearest substitute is to send him to relatives who live on a farm, and who are willing to care for him.

A. C., male, age 16, barber student.

Chief Complaint.—Could never learn to read or write.

Present Illness.—He was not thought to have anything wrong mentally until he went to school at 6 years. Then it was found that he could not learn the meaning of letters. He could copy writing but had no idea of its significance. He spent 5 or 6 years in school but never learned anything from books. There was no trouble at kindergarten or later with manual work, such as carpentry, electrical wiring or running automobiles.

He can learn the words of a song if told of them a few times and can carry a tune. He plays basket ball and football, and likes picture shows, but has to guess the story. He can draw from copy and recognize pictures.

He is nervous and restless, and was a bed-wetter until last year. He is at times depressed over his failure to read and write, but is usually good natured, and with no vicious tendencies.

He is very forgetful of commissions.

Past History.—Father was drunk at conception. The patient was born at full term,

but weighed only 2½ pounds. At 8 or 9 months his father while drunk let him fall, striking the left side of his head. He was sick for some weeks, but his mother noticed no difference in his behavior after the injury. He did not walk until 2½ years old, and was somewhat slow in speaking. His left eye often becomes crossed, especially when excited. The muscles of this eye were operated upon by Dr. Curran some time ago. Tonsils and adenoids have been removed. General health has always been good.

Family History.—One sister older, two sisters younger, well and normal. One brother died at birth. Mother in good health. Father is nervous and unstable and was a heavy drinker up to 10 years ago. The mother impresses one as subnormal mentally with poor memory. No history of mental deficiency in the family.

Examination: Physical.—The patient is a clean, neatly dressed boy of 16, of good development and nutrition. His general and neurological examinations were entirely normal. Radiogram of head shows slight flattening of sella turcia, but is otherwise normal. Wassermann reaction, blood negative.

Psychic.—The patient is agreeable and cooperative, acceding freely to all requests, though often with an appearance of embarrassment. He has a tendency to make self-deprecatory remarks in a laughing manner. His conversation turns frequently to the subject of his inability to read and write. He says "I'm no good; I'm going to pack up and leave as soon as I learn my trade." He is coherent and connected. His delivery and enunciation show no peculiarities. He is restless and impatient of waiting in the clinic. He is often depressed at his inability, and occasionally cries about it. When his attention is diverted he is good natured and laughing. No inconsistent or inadequate reactions.

He gives a free and fairly satisfactory account of his trouble. He feels that he is different from others, and his main interest is in the possibility of learning to read. At present the fear that he will not be able to "get a girl" because of his defect troubles him most. There are no delusions, hallucinations or misrepresentations of any kind. The idea that he can

be helped by an operation on his head is thoroughly fixed. He is oriented for place and person, but uncertain about the month and year. His memory of recent and remote events appeared to be not impaired but his retention is not good. His aunt says that he cannot remember articles he is sent to buy. He cannot recall numbers a few seconds after hearing them.

He counts uncertainly to 12, but cannot count backward. In writing he transposes 6 and 7, though he gives them in correct order verbally. He succeeded in adding 2 and 3, and in making change in amounts less than one dollar. All these operations were done with an appearance of great effort. He cannot give the alphabet, the months of the year, and says there are five days in the week, though he names seven correctly. He knows very little of current affairs. He is able to find his way about the city and can drive a car, attend to wiring a house, likes machinery, and says he is doing satisfactorily at the school for barbers.

He has a feeling of economic responsibility and wishes to be self-supporting. He fears he will "never be able to amount to anything in the world."

By the Yerkes Point Scale test he made an intelligence quotient of 54.7, corresponding to a mental age of 8.6 years. There is obviously a special defect in the sphere of reading, and this may affect unfavorably the responses to some of the tests, through lack of practice in visualizing. In other words, with all possible allowance the patient cannot be graded higher than Moron.

He has a certain amount of insight into his defective ability to read, but not into his general mental defect.

Diagnosis.—Congenital word-blindness.

This is a condition first recognized by Kussmaul in 1877. It is characterized by a congenital inability to understand written or printed words, although the vision is unaffected and the general intelligence is above the "reading level." For many years congenital alexia has been looked upon merely as a curiosity, but with the greater attention which has been given recently to unusual and defective school children, the subject has taken

on practical importance. There is no doubt but that many children with this defect have been looked upon as feeble-minded because of their total inability to conform to the standard courses of instruction. The tendency of such ill-adapted children to become delinquent and nervous is now well understood. (Sanger Brown II, *Medical and Social Aspects of Childhood Delinquency*, Am. Jour. Insanity 1921, v. 77, page 365.) If the condition is clearly understood by teachers and parents and by the child himself, a little common sense advice is frequently sufficient to prevent a great deal of unhappiness and delinquency. There can be no doubt that congenital alexia is much more frequent than the reports in the older literature would indicate. Dr. J. E. Wallace Wallin, Director of the Psycho-educational Clinic in St. Louis, has reported an incidence of 4.48 per cent in 2,116 school children, more than the combined totals of epileptics, psychopaths, mongols and cretins.

In treating these individuals it must be remembered that there are all degrees of word-blindness, from the slightest to the most profound. Frequently intense application results in improvement or even a certain degree of facility in reading. Concentration on this defect should not lead to neglect of general education, which can be carried out orally. In the case reported here, the boy had been penalized at school for having his schoolmates read his lessons to him. He was able to learn very well in this way.

—————R—————

Death statistics of the Board of Health of New York City from July 1 to December 31, 1920, show 2,691 deaths from cancer and 2,669 deaths from tuberculosis. Or 22 more deaths from the former disease. This increase in cancer mortality may be credited to the drugless healer. It is additional proof of their claim that one-third of the population of the United States is treated by drugless healers. Or rather that the people are camouflaged by them. The suffering cancer victim sleeps away his time, having been lulled by the hypnotist and is aroused, only, when the ravages of the disease become alarming and he then calls on the surgeon when it is too late.

THE JOURNAL of The

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W. E. McVEY, M.D. - - **Editor**

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The Goat.

When morphine was first introduced it was regarded as one of the rare blessings conferred upon suffering humanity. The fact that its abuse has led to much evil does not lessen its beneficent virtues in the hands of intelligent physicians. The medical profession was fully alive to the distressing conditions resulting from the misuse and abuse of narcotic drugs and was active in its advocacy of legal restrictions upon their manufacture and sale, but there seems to be no satisfactory reason for the medical profession being taxed to pay the cost of administering these laws.

The medical profession was largely in favor of the prohibitory amendment, but one must suspect that a full realization of the manner in which the prohibitory laws were to be enforced would have changed the attitude of those who were strongly for its adoption.

It is rather late in the day to enter the protests which should have been made when the laws were being framed, but even now it may be possible to convince our congressmen that the medical profession need not always be the goat when it is necessary to restrict the manufacture and sale of habit forming drugs.

It is some satisfaction at least to know that one organization of medical men has had the temerity to publicly declare its views upon this subject.

The following Resolution was passed at the

52nd annual meeting of the American Medical Editors' Association, June 7th.

Whereas, The medical restrictions of the Volstead Act, together with its various administrative and other interpretations and rules and regulations and enforcements, etc., constitute in some of their effects, indictment of the medical profession and harrassment of the medical practitioner and the sick, and are obstacles to free pursuit of honest medical judgment and therapeutics, and have reacted to the detriment of society and the public health and are opposed to public policy;

And Whereas, Some of these restrictions and rules and regulations and interpretations etc., are not based upon consensus of medical experience and practice and established usage;

"And Whereas, It is apparent that they have not been framed and interpreted and administered with full appreciation of all matters involved;

"And Whereas, The precedent established by the Volstead Act in restricting medical practice, should, if physicians value their therapeutic liberty, be met with a protest that will command attention;

"And Whereas, The point at issue is the right of the physician to select his remedies, and to decide what doses of these remedies each patient requires;

"And Whereas, This issue in no wise affects and has nothing to do with propaganda either for or against prohibition, but is purely a matter of preserving the necessary rights of the physician in the interests of public health and public policy;

Be It Therefore Resolved, That the American Medical Editors' Association protests against further undue regulation of therapeutic procedure by statutes or by administrative interpretation or regulation;

And Be It Resolved, That the Association requests of the proper authorities a review and revision of such existing statutes or rules or regulations as may be unduly restrictive of the therapeutic judgment and procedure of physicians.

We ask this for the preservation of the necessary rights of the medical profession and in the name of public welfare and wise public policy.

The further restrictive legislation which is being contemplated has a much more far reaching effect than the present laws governing the enforcement of the prohibitory amendment. We are assured that the manufacture of chemicals will be seriously handi-

capped. The following letter has been sent out by the American Chemical Society and explains the dangers which further restrictions may cause.

Manufacturers throughout the country are confronted with the most dangerous situation of this generation.

It is more than a crisis. It is a drive for the jugular vein of many leading industries. If this characterization is regarded as sensational, let any business man examine the so-called Volstead "anti-beer" bill, known in the official records of the House of Representatives at Washington as H. R. 6,752.

The average business man, who has read in the newspaper dispatches from Washington that an "anti-beer" bill was pending, has seemingly shrugged his shoulders. Few, if any of them, have given a thought to the possibility that the measure affected them in the slightest degree.

Yet this very bill spells more disaster to the industries of this country than any other proposal in years. It is true that the seeming purpose of the latest Volstead bill is to upset previous rulings concerning beer as a medicine. If it stopped there, no substantial objection could be offered against it.

Under the cloak of preventing the use of beer as medicine by physicians, H. R. 6,752 would permit any chemical or other manufacturing industry, using or depending upon alcohol to be shut down within thirty days. And what is more dangerous, no appeal could be made to the courts.

That is only one provision of the proposed new law. Another section would require the posting of permits for twenty days, before this basic chemical for many industries could be secured. Power is also given to compel the posting of a copy of the application upon the factory or business house. Then any one of a group of local, state or national officials may file a protest to it. By the time the red tape involved was unsnarled, any reputable company, concern or corporation might be in the hands of the Sheriff or the Federal Courts in a bankruptcy proceeding.

The question has nothing to do with prohibition. If alcohol and preparations containing alcohol have no place in the practice of medicine it does not matter how many restrictions are placed about its manufacture and sale. On the other hand if there are any abnormal conditions that may be relieved or benefited by the administration of alcohol or preparations containing alcohol physicians should have a free hand to use or prescribe

such preparations as their judgment dictates.

It is a questionable state of civilization that permits the sick and suffering to be deprived of a possible means of relief in order that a few degenerates and weak willed neurotics may be protected against their own excesses.

—R—

The Why

In reply to many questions that have been asked in regard to the prosecution of osteopaths for practicing medicine and surgery in Kansas we call attention to Section 10202 of Article 24 of the General Statutes of Kansas (see Kansas Medical Directory) in which will be found the following: "This act shall not apply to any registered osteopathic physician or any chiropractic practitioner of the State of Kansas. . . ."

It appears from this that it is hardly worth while to attempt to prosecute an osteopath for violation of a law from which he is specifically exempted. There is also much doubt if a chiropractic practitioner could be prosecuted for administering medicines if he so desired. For, while he is only permitted to practice chiropractic—whatever that may be—by the law creating the chiropractic board of examiners, there is no law to prevent him giving drugs or doing surgery except the Medical Practice Act, and he is also specifically exempted by the section referred to.

In other words the Medical Practice Act was gently but effectively dehorned by the same interests that put over the laws providing for separate boards of examiners for osteopaths and chiropractors.

The law still requires, however, that real doctors shall pass a rigid examination and receive a certificate from the board. The State permits osteopaths and chiropractors to give medicine but it puts the stamp of its approval only upon those who have been properly trained and are qualified for that purpose.

In perusing the Medical Practice Act one will observe a provision that has either been overlooked or no very consistent effort has been made to enforce it. Under Section 10200, will be found the following: "Between the 1st and 20th days of December in each year the county clerk shall furnish the secretary of the board a list of all certificates recorded and

in force, and also a list of all certificates which have been revoked or the owners of which have removed from the county or died during the year."

A letter to the secretary of the board brought the information that county clerks were neither very prompt nor very careful in making these reports. We quote the following from his reply: "Replying to your letter of the 1st inst., beg to inform you that the county clerks do not make annual reports regularly. Some make complete reports when I write and urge them to do so, others make only partial, while some do not report at all. The majority simply copy from their record book the number of physicians recorded. Some clerks of the counties in which the larger cities are located inform me that they have no means of knowing when the owners of certificates recorded remove from the county or even locate in the county when they record their license there."

Since the law requires the county clerks to make these reports and since that is the only means by which the board can keep track of the physicians it has licensed to practice in the state, there is sufficient reason to enforce this law. If these reports were made it would be comparatively easy for the secretary of the board to keep a complete record of every registered physician in the state. Even though the county clerk is unable to report removals and deaths as the law requires, the secretary of the board can by comparing the reports determine the last location of any who have moved, and either the county clerk or the secretary of the board can secure a list of those who have died from the county health officer.

Certainly the information which was intended to be supplied by the county clerks must be of essential value to the board in the proper performance of its function.

— R —

FABLES FOR THE KANSAS DOCTOR

BY RENNIG ADE.

Once upon a time there was a Kansas Doctor practicing in a county seat town of eighteen hundred souls, and currently believed to have a very enviable business. He had

equipped himself quite thoroughly for his life work, and the high school, state university, medical college and hospital internship had taken about eleven years of the best of his life to say nothing of the five or six thousand dollars it had cost in cash. His office equipment had also been an additional outlay of a couple of thousand.

After several years work he found himself possessed of an income of three hundred per month, a family to care for, and a new car to buy every other year. Being fairly close to a number of matadors, living in a larger city doing surgery, he could not hope to do much along this line, and he gradually, sadly noted the phimoses and ingrowing toe nails going the way of the goitres and enterostomies. An innate sense of modesty prevented him from informing his patients, when they were planning to go away to have the baby's tongue-tie operated upon, that he could do this work. In fact, it would not be as difficult as the podalic version he had done the month before on this same infant, who had been hung up in transit for about six hours.

The loss of this work naturally cut down the fees to which he was justly entitled, and incidentally led to a slight estrangement between his patients and himself. Nothing is more conducive to inharmony between a doctor and clientele than to have a lady patient go away on a visit and come back in four or five weeks and triumphantly exhibit a bottle containing the mangled remains of a poor little ovary, and a receipted bill for two hundred and fifty dollars, (she had owed the doctor twenty-two dollars for three years).

The fact that she was alive was ample evidence in her eyes of the ability of the savant who had pulled the job, and also sufficient to brand the home doctor with incompetence for not advising it. Of course he knows he will now have a steady patient on his hands, and probably get to assist at the obsequies of the fellow on the opposite side within a year or two. However, being a discreet, beneficent, magnanimous hypocrite, he says he is glad she is looking so well. She is now the center of interest in the neighborhood, until it is found out just what amount of remodeling has been done inside. Being flattered by the

interest manifested by neighbors, she attempts to describe just what happened. According to her description, organs were removed, scraped, and sewed together with reckless disregard of anatomical contiguity. There is a common belief among the laity that to take something out and scrape it is equivalent to putting that organ in a proper functioning condition for life.

So firm is this belief grounded in the minds of a great many it is immaterial to them whether it be replaced or not, just so it be taken out and scraped. With the exception of new potatoes, muddy shoes, and ingrowing toe nails, very few things are improved by scraping. Soon others desire to share the limelight, and it becomes quite a fad to have unmentionable organs suspended, scraped, removed or puckered. All this to the glee of the matador and the helpless discomfiture of the family doctor. Sometimes, he thinks of going into some other line of work. He sees the osteopractor across the street with an office full of women waiting to be rubbed and adjusted. He marvels at the gall of a man who puts out a sign with "Doctor" on it, buys a three dollar table and a kimona, and starts to follow the healing art. First he murmurs, "How does he do it?" Next he says, "How he does to do it!" The secret of the whole thing lies in women's inherent desire for orderliness. No good housewife will go down town with a shoe unlaced or a garter down. When she is told that one of her vertebra is impinging on her radius, and knowing that her circumference is directly influenced by her radius, she wants things put in shape. The fact that it will take seventeen treatments to do the structural work, and one extra on soft parts, impresses her with the prognostic acumen of the adjuster.

Most husbands, after a few years, become very poor manipulators, and the innate cravings of the feminine finds an outlet in being twisted around at ludicrous angles, gouged, ruffled up, smoothed down and patted. This, if the proper psychotherapy be employed, and patient and doctor, as it were, become "en rapport" as the French say, during the treatment, is worth two dollars of anyone's money. Incidentally the mammary scirrhus is not appre-

ciably benefitted. And our liberty-loving United States is the only country in the world which takes legal cognizance of these birds of prey.

However, never has their social status risen sufficiently high as to encourage many of pronounced intellectuality in taking up the work. This profession and bootlegging has furnished very few candidates for the hall of fame. However, in spite of the many and varied competitors, our doctor managed to make a comfortable living, although the rainy day problem was a question for the future to decide. He had a fairly large country clientele who loyally stayed by him year after year, and paid their bills, blew their noses by dexterously shutting off the opposite nostril with a convenient thumb, and did other things equally disconcerting to a refined nature. Nevertheless when that same thumb guided the labored lead pencil along the bottom of a check and those underclothes gave off the delightful aroma of a freshly marketed load of hogs, all former transgressions were forgotten.

As age crept on apace, and the slight prostatic hypertrophy manifested itself, his jocular colleagues suggested that he buy a waterbury watch and retire from active practice. Knowing these remarks to be animated by professional jealousy, he scorned their advice and drank less water. Denied as he was by his professional standing from using Doan's Kidney Pills, he could not hope to become cured nor ever to see his name in the paper as so many of his fellow townsmen had.

In nearly every locality there lives half a dozen or so old leaves that still cling to the tree by a withered stem, and who before letting go and fluttering down want to see their names in the local papers as having been cured by Doan's Kidney Pills. True the estate is being probated before the testimonial gets into print, but no doubt there is considerable satisfaction after passing on to know that posterity will be authentically informed just how often the passee had to get up at night. These things and many others the doctor noted with mixed feelings of amusement and tolerance, finally developing a philosophy which could accommodate itself to all the varied emotions to which he found himself subjected.

He learned to smile and say nothing when some good friend brought him a bone, and he gave the friend no bone to carry away. He accepted praise and censure with the same reservations, and did not let it interfere with fishing when the bass were striking. He educated his children, went to church occasionally, read the Saturday Evening Post, and voted his ticket straight.

Moral—And his name is Legion.

BOOKS

The Principles of Therapeutics, by Oliver T. Osborne, M.D., Professor of Therapeutics, Department of Medicine, Yale University. Octavo of 881 pages. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$7.00 net.

An up-to-date chapter on prescription writing adds considerably to the value of this work. The therapeutic classification given is simple and practical. The first division includes drugs for local use under which there are five classes: Drugs used to destroy micro-organisms; drugs used externally for action on the skin; drugs used for action on mucous membranes; drugs used for local action in the stomach; drugs used for local action in the intestinal canal.

The second division includes those used for systemic action and presents nine classes: Drugs administered internally for their action on the skin; drugs used for their action on the genito-urinary system; drugs used for action on the respiratory tract; drugs used for action on the circulation; drugs used for action on the central nervous system; drugs used to lower the temperature of the body; drugs and preparations that are specific; drugs used as specific; drugs used to modify metabolism.

Principles of Hygiene: A Practical Manual for Students, Physicians, and Health Officers. By D. H. Bergey, M.D., Dr. P.H., Assistant Professor of Hygiene and Bacteriology, University of Pennsylvania. Seventh Edition, thoroughly revised. Octavo of 556 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1921. Cloth, \$5.50 net.

The seventh edition of this work has been somewhat improved and the text has been rewritten where necessary to bring it up to the present standards. The whole subject of hygiene is thoroughly covered; in fact, nothing

seems to have been omitted that could interest or instruct the student.

A Primer of Diabetic Patients. A Brief Outline of the Principles of Diabetic Treatment, Sample Menus, Recipes and Food Tables. By Russell M. Wilder, M.D., May A. Foley, and Daisy Ellithorpe, Dietitians, The Mayo Clinic. 12mo. of 76 pages. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$1.50 net.

This little book is intended for the use and instruction of diabetic patients. A large part of the book is devoted to the various diet menus and recipes for these patients.

Practical Medicine Series, comprising eight volumes on the year's progress in medicine and surgery. Under general editorial charge of Chas. L. Mix, M.D., Prof. Physical Diagnosis, Northwestern University Medical School. Price, \$12.00. Published by The Year Book Publishers, 304 South Dearborn St., Chicago.

Vol II—General Surgery edited by Albert J. Ochsner, M.D., Chicago.

Vol. III—The Eye, by Cassy A. Wood, M.D. The Ear, by Albert H. Andrews, M.D. The Nose and Throat, by Geo. E. Shambaugh, M.D.

Vol. IV—Pediatrics, by Isaac Abt, M.D., and A. Levinson, M.D. Orthopedic Surgery, by Edwin W. Ryerson, M.D., and Robert O. Ritter M.D.

The Wassermann Test, by Chas. F. Craig, M.D., M. A., F.A.C.S., Lt. Col. M. C., U.S.A., Prof. Bacteriology, Parasitology and Preventive Medicine, and Director of Laboratories, Army Medical School, Washington, D. C. Second Edition. Price, \$4.25. Published by C. V. Mosby Co., St. Louis.

This book has been largely rewritten and considerable new matter added. Important changes have been made in the technic of the tests. The author lays stress upon the importance of selecting donors for blood cell suspension from individuals belonging to Group IV of the Moss classification. Every thing of importance that has appeared in the literature during the past two years has been included in this edition.

American Red Cross Work Among the French People, by Fisher Ames, Jr. Published by The Macmillan Co., New York.

This is a subject not only well worth writing about but in which every citizen should be interested. When it is recalled that in seven days the people raised one hundred million dollars to start to work in France, and that

during the whole period of activity the citizens of the United States contributed more than four hundred million dollars, it is inconceivable that the people should not want to know how the work was conducted and what it accomplished.

Practical Tuberculosis: A book for the general practitioner and those interested in tuberculosis, by Herbert F. Gammons, M.D., Superintendent Woodlawn Sanatorium, Dallas, Texas, and Asst. Instructor in Clinical Medicine, Baylor Medical College. Price. \$2.00. Published by C. V. Mosby Co., St. Louis.

Following a history of tuberculosis the author discusses predispositions and causes. Under the head of diagnosis the usual accepted methods are described. Two-thirds of the text is devoted to treatment and all may be summed up in one paragraph of the conclusions: "Considering treatment, it must be realized that nature cures tuberculosis with her processes of rest, fresh air, food and sunshine, and that the doctor helps nature if he understands her warnings and knows what to do."

Physiology and Biochemistry in Modern Medicine, by J. J. R. MacLeod, M.B., Prof. of Physiology in the University of Toronto. Third Edition. Published by C. V. Mosby Co., St. Louis. Price, \$10.00.

This is a subject so closely related to progress in medicine that frequent revisions are necessary. This edition shows many changes and much new material. To the section on the nervous system has been added an account of the fundamental principles of neuromuscular physiology.

The section on the chemistry of respiration has been rewritten and new material added. Much new material has also been added to the section dealing with the endocrine organs. The work is well illustrated and the technic of all procedures carefully detailed.

Handbook of Chemistry and Physics: A ready reference pocket book of chemical and physical data, by Chas. D. Hodgman, M.D., assisted by Melville F. Coolbaugh, M.A., and Cornelius E. Sensemman, M.A. Eighth Edition. Published by The Chemical Rubber Co., Cleveland, Ohio.

There is much valuable information condensed in this little book. The subject matter has been selected, condensed and tabulated so that it meets every requirement for quick and ready reference. Some additions have been made to the older editions: Metric-English

and English-Metric conversion tables; common names of chemicals and correct names and formulae, etc.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1920. Cloth. Price postpaid, \$1.00. 72 pages. Chicago: American Medical Association, 1921.

While New and Nonofficial Remedies consists in part of descriptions of those proprietary medicines which the council deemed worthy of consideration by the medical profession, the Annual Reports of the Council on Pharmacy and Chemistry describe the preparations which the Council finds unworthy of recognition. In addition, these annual reports contain other announcements of the Council.

The preset volume contains a number of interesting reports. Thus we find a statement which makes it clear that many of the large pharmaceutical houses are definitely opposed to the work of the Council and will remain antagonistic until a very large proportion of the medical profession will give the Council their active support. The volume also contains a report on some digitalis preparations which the Council examined and declared to be pharmacopial digitalis products and therefore do not require the control of the Council.

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Twenty-fourth Annual Meeting of the Medical Library Association

The twenty-fourth annual meeting of the Medical Library Association, whose membership includes all of the larger medical libraries of the country, and a large number of individual members, consisting of those interested in furthering medical library work, was held in Boston, June 6, 7, 8, 1921. The business meetings of the Association were held in the Boston Medical Library. In addition to the address of the President the program contained the report of a committee on Standard Classification, and the system used in the Boston Medical Library, and this as explained by the Chairman, Mr. James F. Ballard, was adopted as being the most practical solution for meeting the perplexing problems of classification. This was followed by a discussion on Reference Aids, which was opened by Mrs. Grace W. Myers, of the Treadwell Library of the Massachusetts General Hospital. An even-

ing meeting, which was largely attended, was addressed by the president, Dr. John W. Farlow, of the Boston Medical Library. This was followed by an interesting paper, illustrated by lantern slides, by Dr. George S. Huntington of New York City, entitled "Some Historical Facts Concerning the Catoptron of Johannes Remmelinus, and the Superimposed Anatomical Plate During the Early Part of the 17th Century." Following this Dr. Malcolm Storer, of Boston, read a paper entitled "Interesting Medical Medals."

In addition to the regular program, visits were made to the various libraries in Boston. In each case the members of the Association were shown over the buildings and the various points of interest were explained. Visits were made to Harvard Medical School Library, Boston Public Library, Harvard College Library, Treadwell Library and the Boston Athenaeum Library. Of particular interest was an exhibit of rare medical items from the library of Dr. Edward C. Streeter, of Boston, spread in the exhibition room of the Boston Public Library. The exhibition was specifically epidemiological, the essential literature on fevers from Hippocrates to Lancisi, with a few sections such as Plague, Syphilis, Venesection superadded.

The permanent headquarters of the Medical Library Association is in the Medical and Surgical Faculty Building, at 1211 Cathedral Street, Baltimore, Maryland.

Our New Doctors

The following named graduates of the School of Medicine have been appointed to internships as follows:

Forrest N. Anderson, Porter Scholarship, 1921, Interne, U. S. Public Health Service Hospital, Kansas City.

Herbert R. Bennie, Interne, St. Vincent's Charity Hospital, Philadelphia.

Robert F. Campbell, Interne, St. Mary's Hospital, Kansas City.

George Edwin Cowles, Interne, New Haven Hospital Yale University,

Wilfred H. Cox, Interne, St. Francis Hospital, Wichita.

Claude F. Dixon, Interne, Bell Memorial Hospital, Rosedale.

Ralph Emerson, Interne, Bell Memorial Hospital, Rosedale.

Herman E. Friesen, Interne, St. Joseph's Hospital, Kansas City.

Hugh A. Gestring, Interne, St. Margaret's Hospital, Kansas City.

Helen E. Gray, Interne, City Hospital, Nashville, Tenn.

Samuel J. Hurwitt, Interne, General Hospital, Kansas City.

Emsley T. Johnson, Interne, Metropolitan Hospital, New York.

Fred J. McEwen, Interne, Montreal General Hospital, Montreal.

Cline W. McWilliams, Interne, General Hospital, Kansas City.

Carl Newman, Interne, General Hospital, Kansas City.

Paul R. Rannie, Interne, Bell Memorial Hospital, Rosedale.

Roy U. Stevens, Interne, General Hospital, Kansas City.

Edward H. Thiessen, Interne, New Haven Hospital, Yale University.

Thomas J. Walz, Interne, New Haven Hospital, Yale University.

Joseph E. Welker, Interne, New Haven Hospital, Yale University.

Ward W. Weltmer, Interne, Swedish Hospital, Kansas City.

DEATHS

William S. Hendricks, Iola, aged 93, died April 29. He graduated from Medical College of Ohio, Cincinnati, 1860.

Mareks Mandes Willoughby, De Soto, aged 82, died May 25. He attended University of Pennsylvania, license, Kansas '01. He practiced for nearly fifty years at De Soto.

Dr. I. H. Magill, aged 60, died on April 18, 1921, at his home in Lawrence. He was graduated from University Medical College, Kansas City, Mo., in 1884. His body was taken to Corning, Kan., his former home, for burial.

William H. Mathis, Waverly, Kan., aged 81, died May 26. He was a graduate of St. Louis Medical College, 1867.

SOCIETIES

Douglas County Medical Society

The members of the Douglas County Medical Society and their wives enjoyed a social function at the Country Club, on June 2d, the regular meeting night, when, through the courtesy of the members belonging to the Club, a sumptuous feast was had. More than thirty enjoyed the event. The doctors are also planning a joint session with Franklin County Society early in the fall.

J. R. BECHTEL, Secretary.

Sumner County Medical Society

The Sumner County Medical Society will meet the last Thursday of each month at the Park House, Wellington, Kansas.

Supper at 75 cents a plate will be served at 7 p. m. Food for the supper is purchased at 9:30 a. m. for the number of plates reserved.

PROGRAM, THURSDAY, JUNE 30, 1921.

PART I—8 P. M.

The Misses Coral and Dorris Shelly will provide the entertainment.

PART II—8:30 P. M.

Symposium on Diseases of the Circulatory System.

1. Blood Pressure, Dr. C. E. Thompson, Oxford. Discussion lead by Dr. J. C. Caldwell.

2. Phlebitis, Dr. H. A. Vincent, Wellington. Discussion led by Dr. G. S. Wilcox.

3. Endo Myocarditis and Aortitis, Dr. J. C. Woll, Hunnewell. Discussion lead by Dr. H. L. Cobean.

4. Diagnosis and Treatment of Valvular Heart Diseases, Dr. E. F. Erickson, Caldwell. Discussion lead by Dr. A. R. Hatcher.

5. The Heart Neuroses, Dr. R. A. McIlhenry, Conway Springs. Discussion lead by Drs. A. R. Burgess and R. W. VanDeventer.

PROGRAM, THURSDAY, JULY 28, 1921.

Symposium on Diseases of the Digestive System.

1. Gastric and Duodenal Ulcer, Dr. J. C. Caldwell, Wellington. Discussion lead by Dr. A. R. Hatcher.

2. Gastritis and the Neurosis, Dr. F. F. Netherton, Wellington. Discussion lead by Dr. M. W. Axtell.

3. Appendicitis, Differential Diagnosis and Treatment, Dr. H. Gerald Shelly, Mulvane. Discussion lead by Dr. E. A. Evans.

4. Ileo-Colitis, Differential Diagnosis and Treatment, Dr. J. R. Burnett, Caldwell. Discussion lead by Dr. W. E. Bartlett.

5. Typhoid Fever, Dr. J. C. Wilcox, Argonia. Discussion lead by Dr. F. G. Emerson, Wellington.

T. H. JAMIESON, Secretary.

Harper County Medical Society

The Harper County Medical Society met in Harper on June 22. There was a good attendance and after the routine business the following program was presented:

Recent Observations of Medical Doings in California—Dr. Montzingo, Attica.

Obstetrics as a Specialty in Medicine—Dr. Westfall, Harper.

The Sympathetic Nervous System—Dr. Walker, Anthony.

Report of Cases—Dr. Gaume, Harper.

H. W. GAUME, Secretary.

A. E. WALKER, President.

Coffey County Medical Society.

Regular meeting of the Coffey County Medical Society began with a banquet at the Riverside Hotel, with twelve doctors present, after which we adjourned to the Library basement where the meeting proper was held.

Dr. H. T. Salisbury, acting chairman in the absence of President Fear, called the meeting to order and disposed of the current business.

Dr. Lawrence of Emporia, was introduced and he read a very interesting and instructive paper on "The Diagnostic Value of Certain Abdominal Symptoms." He brought out clearly the diagnostic value of rhythmic pains in the abdomen as related to the hollow viscera and reported a number of cases. The paper was followed by an open discussion in which a number of interesting cases were reported.

Dr. Trimble of Emporia, was then introduced and read a paper on Otitis Media which covered all phases of the disease and its complications and sequelae and the later methods of treatment. It was a very good paper and

covered the subject thoroughly and was illustrated by several case histories. Open discussion resulted in numerous questions asked and cases cited.

This concluded the meeting and the chairman thanked the guests in behalf of the society for their splendid evenings entertainment.

The Society has now in good standing 19 members out of a possible 22 and we are working for the 2,000 in 1921.

A. B. McCONNELL.

Secretary.

CHIPS

Dr. C. C. Surber, a practitioner of medicine for the past 27 years in Independence, has moved to Green Acres, Wash., where he has an apple orchard. The doctors of Independence gave a dinner in honor of Dr. Surber. All invited were present and wished him success in his new undertaking.

The following Kansas doctors attended the meeting of the American Medical Association: S. J. Crumbine, Topeka; Frank Foncannon, Emporia; J. L. Grove, Newton; R. S. Haury, Newton; C. Klippel, Hutchinson; Albert N. Lemonine, Concordia; Karl A. Menninger, Topeka; E. N. Robertson, Concordia; F. H. Smith, Goodland; E. R. Penney, Lawrence; C. H. Jamison, Hays; J. W. May, Kansas City; J. F. Shelley, Elmdale.

Dr. Ralph H. Major, at present of the Henry Ford Hospital, Detroit, has been appointed head of the department of medicine of the University of Kansas. Dr. Russell L. Haden has been appointed associate professor of medicine and will have charge of the laboratory work, including the chemical work, in this department. These men have both had exceptional experience in their line of work and in teaching and with the men now on the faculty will give the University of Kansas one of the strongest departments in Internal Medicine in the country.

The mortality tables of the U. S. tell us that tuberculosis has fallen 30 per cent since 1900. While that of cancer, under surgical treatment, has increased about 30 per cent

during the same time. These statistics give surgery a black eye.

There are two agencies that add to the surgical mortality table. The first one is the drugless healer whose shibboleth is mind cure and non-surgical interference; thus lulling the cancer victim to sleep away his time to live. And only where the ravages of the disease arouse him to the immediate danger does he consult the surgeon to hear the fatal words, "too late."

For the second, if he is so unfortunate as to consult a simon-pure financial surgeon, life's journey will be shortened and surgery get the blame instead of pelf.

Theocrasia is a fusing of the gods. It was practiced some 300 years B. C. The fusing of medical cults, in the present age, would usher in the medical millenium; a condition not desirable. Evolution in medicine would stop. In diversity is progress.

Wells, in his "Outline of History" says that massage was practiced in the Geolithic age—(new stone age, some 15,000 years ago); that circumcision was a common practice. Tattooing was fashionable and that these ancients "put a crimp in man's anatomy" by deformation of the heads of the infants by bandaging. It was customary to put the father to bed when a child was born. In the eleventh century A. D. the Arabs had made great advances in medicine; one, Avicenna being the Prince of Physicians.

Wells says further, that their surgeons understood the use of anesthetics, and performed some of the most difficult operations known. The kind of anesthetic used is not named. Probably poppy juice or its tincture. For they had a *materia medica* in those days and had "discovered alcohol, potash, nitrate of silver, corrosive sublimate, nitric and sulphuric acid."

A specie, in biological language, is distinguished from a variety. A variety can interbreed while a specie cannot. Nature got the horse laugh on herself when she made a mule; and saved herself by the skin of her teeth, only, in rendering the mule sterile.

The short skirt, worn by women, has put

the optical business on the blink by improving the men's eyesight. Knee painting is becoming a fad with some women and should it become fashionable and they would paint up as far as possible the spectacle vender sees his finish. However—a little trouble now and then is meted out to the best of men. But fashion is not the only thing that gets a fellow in bad, as happened the other day when Dr. Magee turned a prospective engineer down for color blindness because the applicant agreed with the doctor that a skein of red yarn was green. The applicant said he knew it was red, but wanted to be agreeable for the doctor was so nice to him. Moral: Tell the truth and don't permit anybody to point out the right thing in the wrong way.

"Switzerland is said to have a greater number of deaf mutes than any other civilized country. About 245 to every 100,000 inhabitants as compared to 79 in the other European countries and 68 in the United States of America."

"Claustrophobia is a dread of being confined in a room or house and satisfied, only, when in the open air." Back to the farm is the cure.

The word Nicotine is so called from Jean Nicot, French Ambassador to Portugal, who gave the seeds of the tobacco plant to Catherine de Medici.

Hoffman Memorial Hospital, Little River, Kansas, erected in 1915 by George M. Hoffman, a citizen of Little River, has recently received an endowment of \$50,000 from Mr. Hoffman.

The government has to date made a total disbursement of \$226,486,891.34 in meeting both the compensation claims of former service men disabled by reason of wounds, injuries or disease incurred in the world war, and the death claims of the dependents of those who made the supreme sacrifice, according to an announcement of Director C. R. Forbes of the Bureau of War Risk Insurance. The disbursements for disability have aggregated \$192,677,589.48 and the death disbursements \$33,809,301.86.

The proposed Public Health institute which the Service contemplated holding in Washington, D. C., during the fall of 1921, has been indefinitely postponed. This action has been decided upon after several conferences between officers of the Service and officers of the American Public Health Association.

The Fiftieth Annual Meeting of the American Public Health Association is to be held in New York City, November 14-18, 1921. Several other activities are planned by the Association in connection with their semi-centennial meeting in November, 1921, and it was at the request of the American Public Health Association that the Service institute for next fall was abandoned.

As an ambulance stopped, all the youngsters in the neighborhood collected to watch proceedings. Later, Elizabeth, aged ten, when passing a nearby house was asked. "Where was that ambulance stopping?" She replied, "At Miss M's house, they are taking her to a hospital and are going to take out her independence."

Dr. Henry A. Dykes for many years secretary of the State Board of Medical Examination and Registration has resigned and has accepted an appointment in the United States Public Health Service.

Dr. A. S. Ross of Sabetha, has been appointed to succeed Dr. Dykes as secretary of the Board.

In the current enthusiasm for so-called endocrinology, medicine may become humiliated by the drift toward a sort of pseudoscience bolstered up with meaningless words and unfounded assumptions. Stewart deserves the thanks of the medical profession for the fearless and critical manner in which he has questioned (Endocrinology, vol. 5, p. 283, May, 1921), much of the verbal rubbish that goes under the designation of the endocrinology of the suprarenals. There is something stinging, yet deserved, in its implied rebukes, in the words of Dr. Stewart: "On the whole," he says. "It must be granted that hitherto the attempts made to evoke in animals a well marked syndrome characteristic of adrenal deficiency have been singularly disappoint-

ing. The contrast is great when we leave this desert, where the physiologists and experimental pathologists have wandered, striking many rocks but finding few springs, and pass into the exuberant land of clinical endocrinology, flowing with blandest milk and honey, almost suspiciously sweet." How much longer will the medical profession continue to merit such criticism? Just so long as the profession continues to give serious consideration to pseudoscientific rubbish promulgated by the exploiters of organic extracts (*Jour. A. M. A.*, June 11, 1921, p. 1685).

In a paper on Cerebellar Fits by Russell E. MacRobert and Laurent Feinier (*Arch. Neurol and Psychiat* Mar. 21) the following conclusions are reached: There are 9 cases only in this series of 45 posterior fossa tumors in which phenomena occurred that might be considered under the caption of "fits." From a study of these cases and a brief review of the literature, we have concluded that convulsive phenomena of any sort in tumors of the posterior fossa are rare; that the chief distinguishing feature of those which have been noted is the irregularity and sustained tonic-ity of the movements, in comparison with the rhythmic, clonic movements of forebrain fits. Sudden involuntary movements, similar in a measure to the so-called forced movements which follow experimental ablation of parts of the cerebellum, were observed in some cases. Sudden characteristic disturbances in the function of the cranial nerves in the posterior fossa, such as tic-like spasms and respiratory embarrassment, may result from irritation by a tumor in this region. Fits of any kind usually occur late in the illness, after convulsive signs of cerebellar disease have long been present. Jacksonian convulsions, which may result from instability induced by the growth of a tumor in the vicinity of the cerebral motor cortex, are easily distinguishable from cerebellar fits by the deliberate, progressive, clonic character of the spasms.

In a paper on "Intravenous Chemotherapy" (*Ill. Med. Jr.* 6-21) M. W. Harrison refers to his experimental work with several of the dyes in tuberculosis. He has found one which

seems to meet all requirements and which he says "is probably a hexamethyl dye." According to his report the intravenous injection of this dye has given some very encouraging results. He states that patients have been observed for four years and are still in good condition and without any indications of ever having had tuberculosis. There is no dangerous reaction following the injections.

Opinions have differed as to the fatigue-causing powers of different occupations; and many efforts have been made to establish a scale for definitely ranging them. A recent report of the United States Public Health Service states that the amount of sulphur excreted through the kidneys of men engaged in a wide range of work has been found to coincide very closely with the relative arduousness of the work, as estimated by four good observers.

Personal responsibility for the transmission of venereal disease has now been upheld in several different phases by both civil and criminal courts, says the U. S. Public Health Service. In Oklahoma a man has been sentenced to five years in the penitentiary for infecting a girl with syphilis. In Nebraska the court upheld a doctor who warned a hotel keeper that one of his patients, a guest at the hotel, had syphilis and had refused treatment and was consequently a menace to the public health. In North Carolina a woman has been awarded \$10,000 damages against her husband for a similar infection and the Supreme court has upheld the judgment.

Death rates among graduates of women's colleges in the United States are exceedingly low. A recently completed study covering the mortality experience, after graduation, of 15,561 women, shows that at ages 20 to 64 years the death rate is only 3.24 per 1,000. Between 25 and 34 years, where nearly one-half of the total observations were centered, the death rate was 2.77 per 1,000. Among women in the general population of the United States Registration Area the death rate at this age period was more than twice as high, namely, 6.10 per 1,000.—*Bul. Met. Life Ins. Co.*

Studies made in many different countries

have demonstrated that the death rate among artificially fed babies is at all times higher than among breast fed babies; that where for any reason breast feeding is the custom, the mortality rate is low in spite of other unfavorable factors; and that when for any cause breast feeding is increased in a community the infant mortality rate is lowered. Studies made in over-crowded and poverty stricken districts of New York, Chicago and other large cities indicate very clearly that where by race or custom it is the practice to feed infants at the breast the infant mortality rate is relatively low. It has been further shown that the good effect of breast feeding is manifested not only in infancy but in later childhood and even in adult life.

Two cases of acute and one of chronic nephritis were reported in Policlinico (Rome), April 16, by Borelli, who affirmed that considerable benefit was realized from treatment with Adrenalin. In one case, that of a child 5 years of age, he gave one cc daily of the 1:1000 solution in divided doses of four drops at four-hour intervals. Eight-drop doses were administered in the other two cases, the patients being adults. Another Italian physician, Ercolani, called attention to the efficacy of Adrenalin in nephritis several years ago. He gave it by the mouth and noted the ease and efficiency of this plan of treatment of disease of the kidney, which Borelli seems to have confirmed.

Recently Demetre, of Paris (Bul. de la Societe Medicale des Hopitaux, March 11, 1921), announced that he had found the arterial tension to be exceptionally low in all tabetic patients free from pronounced aortic disease. Treatment with Adrenalin relieved the asthenia and hypotension and arrested the gastric crises and lightning pains. He injects one cc of the 1:1000 solution of Adrenalin Chloride, repeating it the following day if necessary. His observations were based on fifteen cases.

COLONEL SMITH

Some of the eye and ear men of Kansas and adjoining states attended the special clinic at the City and Research Hospitals, Kansas

City, Mo., Monday, June 27. It was a gala day. Colonel Smith of world wide fame of Punjab, India, is making a tour of the large cities in the U. S. and Kansas City was one of the favored cities. Fifty-five cataract operations were done in one day in St. Paul, thirty in St. Louis and thirteen in Kansas City.

His fame as a cataract operator was long known to us. And it was a treat to see him do his work in his way. He is an Englishman and a retired Army officer. He slashed some of our ideas of asepsis, in smoking during the operation and allowing the ashes to fall peacefully on the patients faces and neglecting to make his toilet in changing from one patient to another. As a preliminary a 1-5000 irrigation of bichloride solution was all that was used and in closing a free use of yellow oxide ointment as a final dressing. In his own clinic at home, eighty operations a day is his usual grind.

R. S. MAGEE, M. D.

The best up to date "Charted Sea" on Endocrinology is contained in an article in the June 18, '21 number of the A. M. A. Journal.

It is "An Allegory, Retrospective and Prophetic on Diseases of the Pituitary Gland."

A study of the paper will post the general practitioner and surgeon on the status of ductless gland therapy. The "Glandward" craze is on. This craze is not confined to the practice of the internist. The surgeon is going the internist one better by making a man out of the monkey.

It is one of nature's laws that works two ways. It confirms the Darwinian theory of man's ascent. Man has reached the climax of his ability to civilize higher and it is a going back to be rejuvenated—try again. It is the dawn of better civilization. It will check the retrograde movement. It will meet the requirements of moralist and engenist.

The more noticeable physical difference in the young man-onkey thus far, is the absence of the tail and hair on the head (bald headed) and the ability to shed tears. There is an improvement in morals as shown by the affection of the young for its parents and vice versa. Less tendency to polygamy than in the average man. The mother is more domestic

in her habits. These mental changes are attributed to the gonad fluid of the male tickling the pituitary and awakening the protoplast an active potentiality which was in the beginning and thus eliminating original naughtiness.

Vitalizing water with oxygen is a new industry in Los Angeles. This supersaturated water with free oxygen is called "Liquid Ozone." It is claimed that water can be saturated to the extent of five-and-a-half times its normal oxygen content.

The process of oxydizing water was invented in 1917. Chemists and capitalists are so confident of the success of the method and its financial success that two corporations are investing three hundred and fifty thousand dollars in the venture. They have invested already more than twenty-five thousand dollars in laboratory research and proving efforts.

This supersaturated oxygen water will simplify the present method of giving oxygen and make it within the reach of everybody, financially. The exhilarating effect of this liquid ozone may hasten prohibition by doing away with bootleg whisky.

While these are facts, as related, we await with breathless anxiety the statistical report on the beneficial therapeutic results. And in case of suspended animation from lack of oxygenation of our blood may have to imbibe freely of the liquid ozone to get our breath again.

Compression of Lower Trunk of Brachial Plexus by a First Dorsal Rib. STOFERD, J. S. B., and E. D. TELFORD. (British Journal of Surgery, Vol. VII, No. 26, 1919.)

A few cases of brachial compression neuritis by a normal first dorsal rib have been recorded previously, but an account is given here of ten cases observed within a period of two years proving the condition not so rare as formerly believed. The writer emphasises the fact that, even if an x-ray examination fails to reveal a supernumerary rib as cause of the compression, it must be remembered that a first dorsal rib can produce precisely similar manifestations. Probably a large proportion of obscure cases of atrophy of the hand are

due to compression of the lower trunk by a first dorsal rib. All the patients suffered from neuralgic pain along the ulnar border of the forearm, which was induced or accentuated by anything producing depression of the shoulder girdle. Paresis and atrophy of the intrinsic muscles of the hand were noticeable about the same time as the pain, and, in some, the weakness affected the flexors and extensors of the wrist also. In 9 out of 10 cases objective sensory disturbances were present, and in all nine the loss of protopathic sensibility was greater than the epicritic loss—a dissociation which the writer suggests as characteristic of nerve-compression. Trophic and vasomotor phenomena were very constantly present. In two patients the causation of the onset of the symptoms was clearly trauma, which had caused prolapse of the shoulder and stretching of the plexus over the rib. In other patients the onset occurs most frequently about puberty or early adult life the etiology probably being the same as in cervical rib. Three chief factors are suggested as contributing to the onset of clinical manifestations, and in most patients there is probably a combination of two or more:

1. A predisposing cause seems to be the anatomical relation of the nerve trunk and the rib; as when the bone is "bevelled" by a trunk which received a large contribution from the upper two dorsal roots.

2. Excessive descent of the shoulder after birth.

3. Weakness or loss of tone in muscles which support the pectoral girdle; therefore all debilitating conditions may be the exciting cause.

In the majority, treatment is surgical, consisting of excision of that portion of the rib which is causing the compression. For the traumatic cases and a proportion of the early non-traumatic, development of the trapezius by faradic stimulation, exercises and massage are best. Patients were cured by this procedure. It is further recommended that similar methods should be employed as a routine after excision of the rib.

Where any underlying systemic condition is the cause of muscular loss of tone it is of fundamental importance to treat this. Early

diagnosis is essential if a perfect recovery is to be expected.—Abstracted from Jour. Ner. & Men. Dis., Apr., 1921, K. A. M.

Hypophyseal Form of Congenital Syphilis.

Anti-syphilitic and Organ Therapy, NONNE, M. (Neurol. Centralbl., March 16, 1918, No. 6, Vol. 37.)

In a previous work the author reported three cases of dystrophia adiposogenitalis with psychic infantilism as an expression of lues hereditaria. That the hypophysis is susceptible to syphilitic disease has been known since the researches of Weigert, Virchow, and others, and that it is affected by congenital lues is proved by the anatomical examinations of M. B. Schmidt and especially of Simmonds, who found gummata, and necrotic and inflammatory changes of the hypophysis in lues congenita and thinks that affections of this sort are frequent in congenital lues. Reports of clinical symptoms of such disease of the hypophysis, however, are rare, having been mentioned, so far as the author knows, only by Goldstein, Wagenmann and Weygandt. The author describes a case of hereditary lues in the third generation, a young man of nineteen showing pronounced signs of a habitus adiposo-femininus, with retarded genital development and psychic infantilism. He was treated for six months, at intervals, with iodide of mercury given internally, and also constantly during the entire period with hypophysis tablets. After three months the adiposity and feminine characteristics began to disappear and at the end of six months he presented the appearance of a normal youth, with normal genitals and hair distribution, and nearly normal psychic development. This case shows that in dystrophia adiposogenitalis in adolescents the possibility of hereditary lues should always be taken into consideration, and that the combined antisyphilitic and specific organ therapy seems effective against the disease, if caused by congenital lues.—(Abstracted from Jour. Ner. & Mental Dis., Apr., 1921, K. A. M.)

General Paresis Is Due to a Distinct Treponema. A. MARIE and C. LEVADITI, Rev. de med. 37:193 (April) 1920.

The authors recall that the likelihood of

the development of general paresis, in a case of syphilis, is in inverse proportion to the occurrence of peripheral ectodermic reactions. Fournier has concluded that general paresis follows, in a habitual quasi-constant fashion, the syphilis of benign initial type. The authors have previously detailed many examples wherein the appearance of tabes and general paresis was found in subjects infected with syphilis from a known common source. Erb cites an instance in which five men, infected by the same prostitute, all became either parietic or tabetic. Nonne, Brosius, and Baninski have reported similar observations. From such observations, one can deduce, at least, the theory of a neurotrophic form of syphilis with a special nerve tissue affinity.

In general paresis, there is the constant presence of *Spirochaeta pallida* in the cerebral cortex and its frequent existence, though probably intermittently and ephemerally, in the blood and spinal fluid. The authors have succeeded in causing three successive passages of the virus of general paresis in rabbits. They used the blood of a parietic patient for the initial inoculation. Results obtained with brain substance and with spinal fluid from parietic cases are also mentioned. With initial virus from a chancre they have obtained, in rabbits, the regular passage of infection over a period of six years. The following important differences between the neurotrophic virus and the dermatrophic, are discussed.

1. The inoculation period in the inoculation from man to rabbit ranged from forty to forty-five days with an average of forty-two with the dermatrophic virus, while with the neurotrophic virus it was ninety-five days as an average.

2. The incubation period in the inoculation from rabbit averaged fifteen days with the dermatrophic and seventy-five with the neurotrophic virus.

3. The lesion produced with the dermatrophic was an indurated chancre with microscopically intense infiltration, abundant connective new formation, a network of spirochetes at the base of the lesion and endo-arteries and periarteritis. In contrast, in the neurotrophic virus lesion, there was slight infiltration, no new formation of connective tis-

sue, spirochetes in the epithelial layers, and only slight ulceration and desquamation of the epidermis.

4. The dermatrophic virus, obtained originally from a chancre, inoculated into a rabbit, is transferable to monkeys. The neurotrophic virus, obtained from the blood of a patient with general paresis, inoculated into a rabbit, is not then transferable to monkeys.

5. The dermatrophic virus passed into a rabbit is transversible to man, as has been demonstrated by two accidental happenings. The neurotrophic virus passed into a rabbit is not then transferable to man, as a voluntary attempt at inoculation showed.

Furthermore, the authors have found that rabbits inoculated with the dermatrophic virus became immune to that virus, but retain susceptibility to the neurotrophic virus, and vice versa.

Judging by the results of these experiments and observations, the authors believe that the spirochete of general paresis must be considered as a different variety than the spirochete causing cutaneous and visceral syphilis. (Abstract from Archives of Neurology and Psychiatry, March, 1921, K. A. M.)

Stockmen have proven that in case of twins, one being a bull calf and the other a heifer, 90 per cent of the heifer calves are sterile. The theory is that "the male embryo secretes a hormone into the blood which, passing into the circulation of the female embryo, tends to prevent sexual normal development of the female." If the calves are both heifers or both bulls they are ordinarily normal. Does some reader of this Journal know if these sterile facts hold good in the human family?

The venereal diseases are for the physicians alone. Osteopaths, chiropractors and Christian Scientists are constrained to withdraw from the field. This adds a greater responsibility to the medical man. He must in the first place be thorough. Carelessness impresses the patient unfavorably and he loses faith in the medical profession. If the medical profession is to maintain its prestige and the confidence of the public it must be able to meet the

increasing demands of an enlightened public. Remembering that each uncured case of venereal disease is dangerous to the public, the physician must either undertake to give the best possible treatment or refer him to a physician who will. It is within the physician's power and his responsibility to see that proper treatment is given to all sufferers, regardless of race, color, or social position. Most patients can afford to pay a reasonable fee, and for those in an infectious stage who cannot, the boards of health provide arsphenamine free. It is up to the physician to be big-hearted enough to see that the drug is properly administered. In rural states it is proposed that the medical men of each community confer and select one man who is willing to make a specialization of the study of venereal diseases. This man, who thus qualifies himself, should be selected to treat the indigent patients. This plan would be advantageous to the medical profession and to the public. It is the duty of the medical men to prevent spread of venereal diseases by the proper treatment of the existing cases. For the best results united and co-operative efforts for encouraging specialization are required.—Knowlton, Modern Medicine, January, 1921.

In the United States in 1919 one mother died for every 135 babies born, and every eleventh baby born died before he was a year old. That these rates are excessive is shown in "Save the Youngest," a bulletin issued by the U. S. Department of Labor through the Children's Bureau, and just revised to compare the latest rates for the United States with those for foreign countries. Six countries are shown to have a lower infant mortality, and sixteen in a group of seventeen, a lower maternal mortality than the United States. Not only do we lose more mothers in proportion to births than practically any other civilized country, but we apparently lose more on an average each year than the year before. Whereas in other countries there has been a decrease in the death rate from childbirth, the rate in the United States rose from 6.1 per thousand births in 1915 to 6.2

in 1916, 6.6 in 1917 and to 7.4 in 1919. Moreover, in this country there is no appreciable decrease in the proportion of babies who die from causes largely connected with the care and condition of the mother. Experience has proved, the bulletin points out, that thousands of deaths of both mothers and children could be prevented every year by public measures for the protection of maternity and infancy. In New York City, among 4,496 mothers who were supervised by the New York Maternity Center Association before and after the birth of their babies, the maternal mortality rate was less than one-third the rate of the United States and the rate for deaths in early infancy was less than half that for the city as a whole. In other cities of the United States and in foreign countries the institution of infant welfare measures has been followed by greatly decreased rates.

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CURE OF INFANTILE RICKETS BY SUNLIGHT

Infants have been exposed by Alfred F. Hess and Lester J. Unger, New York (Journal A. M. A., July 2, 1921) for from a half hour to several hours, varying the period of treatment according to the intensity of the sun and the sensitiveness of the skin. The legs, arms, trunk and face were in turn exposed. It is remarkable how well infants under 1 year of age react to this outdoor treatment, if carried out gradually and under careful supervision. Five infants, three between 6 to 12 months, and two between 12 and 18 months of age, were treated in this manner. Experience showed that daily treatment is not essential. In one of the cases which responded most favorably, the patient could be given the sunlight treatment only on seven days. During this period exposure was given for a total of twenty-five hours. In every instance there has been definite improvement in the rickets as evidenced by the calcification of the epiphyses noted means of the roentgen ray. The alteration resembled that which follows the administration of cod liver oil, and, in one instance, occurred thirteen days after heliotherapy was begun.

The general condition of the infants was also benefited, as were other signs of rickets, such as beading of the ribs and flabby musculature. In one case, calcification of the epiphyses of both wrists was evident, when as yet but one arm had been exposed to the sun—evidence that the action of the rays is systemic and not local.

—————R—————

HEMATEMESIS AND MELENA IN CHRONIC APPENDICITIS

Anthony Bassler, New York, (Journal A. M. A., July 2, 1921) suggests that so-called hemorrhagic colitis may be a colon expression of an appendicemia; that the removal of the appendix is advisable; that the appendix should be removed as early as possible, because in long standing of the condition the benefit may be only partial, since the colon mucosa has taken on a residential condition from secondary infection, but that even in these when the appendix is removed medical treatments are distinctly more helpful toward a cure; and, lastly, that exclusion of the colon, as Lynch advises, or appendicostomy or cecostomy, as Mummery and others suggest, is apparently not required in the successful handling of these cases.

—————R—————

C. & C. Bureau

Every week shows a little more interest in the Bureau. In order that this work may be made the success it should be made every member of the society must take advantage of its facilities. You must not expect the Bureau only to help you, but you must help the Bureau to help others. It must be a co-operative system. The man who refuses to pay Dr. A. will most likely also refuse to pay you. In sending in your accounts, give the name in full if possible, the occupation if known or can be learned, the correct address or the last known address.

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The Modern Prostatectomy

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

If one should attempt to pick the most valuable operation modern surgeons have perfected I am sure that prostatectomy would at least come in the class of "eligibles." I know of no procedure more gratifying to the surgeon or satisfactory to the patient than the suprapubic prostatectomy of today, more specifically, the operation perfected by Freyer of London, whose work I have attempted to imitate in my limited experience in this line of endeavor.

The picture of these men "before and after" successful operation is so well known to most of us that I need only mention it briefly. On the one hand we have a man, usually past 60 or even 80 years of age, who has had for some years an increasingly frequent desire to get up at night to urinate and who, sooner or later, cannot urinate at all. There may be dribbling from overflow and at some time during this stage the family doctor has to come in and relieve him with a catheter. Probably at this time his real and most serious trouble begins, for, once catheterized, it usually means more or less dependence on this instrument and this presages the inevitable cystitis of violent degree which aggravates the hitherto mechanical proposition he has had to combat. Many times the first catheterization is clumsily done or done with ill chosen instruments and forces an issue at once and brings him to the surgeon. On the other hand I have had a case or two who have catheterized themselves for several years with no very marked symptoms nor with the urinary findings so usual in the cystitis accompanying these cases. This however is the exception.

Usually when the catheter life starts it is only the beginning of the finish unless radical operation is done, because it usually means a cystitis of violent degree planted on a soil fertile for its development, with all of its attendant possibilities such as: ascending complications, general sepsis, uremia and breaking of general health and death. Fortunately these late cases are getting more and more rare as the general men "nail" them earlier and surgeons experienced in this line of work are becoming more numerous.

On the other hand these same patients, carefully prepared and willing to take a 5 per cent chance on death and make an average stay in the hospital of approximately three weeks following operation, can get immediate relief after the operation and can go home with a practically normal urination, the wound healed and, frequently, if not too far over the age limit, have a rejuvenation of sexual power thought to be hopelessly lost. Is it worth while? All of those on whom I have operated (and who are alive) will tell you that it is.

The long fought battle between the suprapubicists and the perinealists hasn't interested me very much because, about the time I started to do this kind of work, the suprapubicists had all but conquered the perinealists and I took up the former operation. I copied my work after Bevan, who, I found later, had copied P. J. Freyer of London. The perineal operation was originally most popular as it had a lower death rate and some operators, notably Hugh Young, secured a marvelously low death rate and excellent functional results. But the rank and file of surgeons could not attain his low mortality and old men with incontinent urine, persistent fistulae and a rubber urinal in their pantleg became quite numerous, the stigma of which, no

doubt, stimulated the suprapubicists to greater effort until at present the mortality of the suprapubicists is generally lower than the perinealists and the functional results much better.

My old teacher, W. T. Belfield, of Chicago, is credited with doing the first rational suprapubic prostatectomy in 1886, but it was only a partial enucleation and others following him had such a high death rate the operation went into the discard until Freyer popularized it. It was as late as 1901 when this surgeon reported his first four cases. He has since done 1550, ranging in age from 48 to 89 years, and claims not to have "hand-picked" them. His mortality in these 1550 cases has been 5.33 per cent. In the first 100 cases he operated the mortality was 10 per cent, but in his last 100 he cut this to 3 per cent. Young's mortality in a large number of cases is slightly less than 4 per cent. We can assume that these two men are supreme with their respective operations and that their mortality rates have not been equalled. Deaver and Herman's recent statistical review of 2,500 collected cases does not include such men as Freyer and Young and shows a mortality of 11 per cent for the perineal operation and 7 per cent for the suprapubic. Their studies also show an average mortality of from 20 to 30 per cent when the work was done by men doing less than 100 cases. Probably if all the work older than 10 years was counted out the mortality rates would make a much better showing.

As to my own work, the series is no doubt a small one compared to those who number their cases by the hundred, but being from one of the smaller cities where the work is divided among a large number of general surgeons and a few genito-urinary men it might be worth consideration. My observations are based on an even 20 cases done personally with a mortality of 5 per cent, meaning one death. This particular case I dodged for two years for, knowing him well and the state of his general condition, I had a well defined "hunch" that if he was operated he would die, and I hoped that some of my competitors would get him. He eventually hunted me up and told me that he was ready to take the

chance, and I soon found out that I had the right "hunch." Besides being a poor risk he was my most difficult case technically and probably I should have done a 2-stage operation. While he came off the table in good condition and did fairly well for three days, at the end of that time he died suddenly, immediate cause undetermined.

Of the 19 cases which lived I have had to date 100 per cent of what I would term perfect results. I mean by perfect that the suprapubic incision closed within a reasonable time, the urine passed naturally and easily, the cystitis symptoms cleared so that there was no undue frequency, no distress and no frequent nocturnal desire to urinate, and, in two cases that I heard of afterward, sexual function returned after long absence. In no case has there been the least lack of bladder control. In spite of the fact that hemorrhage is always one of the main fears and much warned about, and we have always made plans for its treatment, we have never had the least hint at a severe one, except in one case and then we had a *real* one following the operation some hours. This was in our first case and resulted in nothing serious, but proved to us the value of the big drainage tube and possibly the harm of a retained catheter.

The shortest time for complete healing of the suprapubic wound has been 14 days. The longest was 7 weeks. All but two closed with normal passage of urine within three weeks. The seven weeks case was also my first case and, while the wound was not completely healed short of this time, it was practically closed much short of this period, there being for many days just a slight leakage of urine. I have operated for prostatic obstruction three times in which none was found, but I operated on the word of cystoscopists of good reputation and do not hold myself entirely to blame. In one of these cases a small stone was the cause of symptoms, although there was some enlargement of the prostate which was not obstructing. In the other two cases I could account for the symptoms in no other way than that they had a paralysis of a type I could not determine with overflow of urine. In both of these the suprapubic

wound was healed, the use of the catheter continued and I have not seen them since.

COMPLICATIONS.

Hemorrhage.—One case developed severe bleeding some hours following operation. It did no serious damage and was the only noticeable hemorrhage I have had. It was the first case I operated and was the only case in which the catheter was left in following the enucleation.

Infections.—One of the earlier cases had a series of superficial abscesses develop in various parts of the body similar to furuncles. They did no damage other than to delay convalescence. I found no specific cause for them. In a recent case we had an infection of the cavity from which the prostate was taken which was quite severe, caused chills, rise in temperature, and there was considerable pus in urine and bladder washings. It caused the delay we had in getting this patient out of the hospital, but cleared quite suddenly and he made a rapid recovery.

Orchitis.—Three cases developed orchitis, two of them unilateral, one bilateral. All ran a typical course with no suppuration. One of these cases developed a hydrocele several years following the operation on the side on which he had the orchitis.

Closure of the Urethra.—There has been no sign of stricture in the deep urethra in any case. In two cases after the patients left the hospital there was a temporary obstruction of the urethra by a mucopurulent plug. One of them relieved himself by hard straining, the other one had to be relieved by having the plug dislodged with a catheter.

Postoperative Phlebitis.—One case. There were no pneumonias, kidney complications and no cancers in the series.

Prostatectomy is not an operation to be done on a kitchen table in a farm house. My cases have, in a way, been "handpicked." All of them have been of the so-called pay class, as we have no facilities for taking on charity cases of this character, in any quantity at least. If we had, our experience would have been much larger than this series of cases would indicate. No one should attempt this work without a place where each and every case can be carefully observed and prepared.

Except in emergency, such as complete obstruction with inability to catheterize, we advise each patient when he presents that it may take several days at least to finish the examination and perhaps longer still to prepare for operation, should that be deemed necessary. He is confined to the hospital, history taken, and a fairly complete physical examination made, special note being taken of blood pressure readings. His residual urine is measured and specimen examined. The total urine for 24 hours is secured and besides the usual chemical and microscopical examination the total solids are estimated. A functional kidney test is made. By all these means we are able to get a fair idea of the operative risk. A cystoscopic examination is not made as a routine, although in certain cases it is of value. One's general estimate of his patient's physique and disposition is of more value as a rule than the laboratory examination, although he should never depend on one to the exclusion of the other. Besides all of these points I insist on a special nurse of my own choosing, if it is possible to have one, as these cases become foul and dirty if not carefully watched, and a good nurse will earn all she receives from them.

Relative to its being a one or a two stage operation, so much discussed, I will state that all of mine have been a one stage. I am not wedded to the one stage, however, and if I thought a certain patient would do better with a two stage I would most certainly give him the advantage of it. Many times this point should be decided after the operation is under way. However, if a patient's general condition is fairly good, if the amount of pus in the urine is not excessive, if his kidneys are a fair average as evidenced by the total solids or urea output and the functional test, then there are very few cases which I have seen which could not be made fair risks in one stage by a few days' stay in the hospital, during which time they get 8 or 12 hour catheterization, or possibly continuous catheterization, urinary antiseptics, large quantities of water and a mild diet. One does not always have to drain these bladders to get them fairly clean. If I could not get results by these measures in a reasonable time then I would plan

on suprapubic drainage under local anaesthesia and follow this after some days, should the patient's bladder clean as it should and his general condition improve as it should, by the enucleation under general anaesthesia. While I have done considerable work with local anaesthetics I have never brought myself to believe that prostatectomy is suited to their use. Perhaps I haven't gotten my nerve up to that point as yet. I have operated several cases that I am satisfied I could have done under local had I so desired. I have witnessed several attempts by men who are advocates of local anaesthetics in this work which rather discouraged me.

After the preliminary preparation as outlined, which is continued up to the morning of operation, a dose of castor oil is given the morning previous. The skin of lower abdomen, pubes and scrotum are thoroughly scrubbed, shaved and dried the day previous to operation. A small dose of morphine and atropine (gr. 1-8 and gr. 1-150) is given 30 minutes before patient goes to the operating room. When he is on the table the skin is again thoroughly scrubbed and rinsed and the abdomen and pubes are washed with ether and alcohol. The bladder is then repeatedly washed with 1-1500 or 1-2000 permanganate of potash solution through a soft rubber catheter. When the washings come clear the bladder is allowed to retain 10 or 12 ounces of the solution and the catheter allowed to remain with a clamp on its end. All of this preliminary work is done before starting the anaesthetic. It might be necessary to use a stiffer catheter than the soft rubber one, such as a French web or even a steel prostatic catheter. If the latter no fluid would be retained in the bladder but the catheter used as a guide to pick up the bladder wall.

When all is ready for the incision the anaesthetic is started and anaesthesia is rapidly accomplished with ethyl chloride, ether or gas-oxygen-ether. A classical suprapubic cystotomy is then done as follows: A median incision is made from $2\frac{1}{2}$ to 3 inches above the pubes and extending well down to the pubes. The dissection is rapidly made through fascia, the muscles split and the prevesical fat rubbed upward as high as is possible without

injuring the peritoneal reflection from the bladder. By continuing the rubbing and picking we locate the bladder wall and insert two temporary traction sutures, one each side the median line and as high as we can get without injuring the peritoneum. As soon as these are placed we are ready to incise the bladder wall and this is done with a sharp pointed knife which we plunge into the bladder at the highest point available and cut downward so as to make an incision large enough to take my index finger easily. As the knife is withdrawn the index finger is inserted in the bladder as the fluid we had previously left in gushes out. The interior of the bladder is quickly explored with the finger which is better than the eye for the purpose at hand. We first locate the catheter projecting through the internal urethral orifice and determine the enlargements of the gland if any and feel for stones and diverticula and new-growths. Enucleation being determined on we withdraw the finger, remove the glove from the right hand, pass to the left side of the patient and insert the index finger of the right ungloved hand in the bladder and the thumb, index and middle fingers of the left hand in the rectum to support the prostate from beneath. We are now in position to enucleate the gland which we have right in our fingers, as it were.

The most prominent projection of the gland is selected and with the finger tip and nail of the index finger the mucosa is burrowed through. In the large soft glands this is easy but in the small hard type with, perhaps, the "ball valve" projection obstructing the urethral orifice, it may be very difficult. The desire is to burrow with the finger until the line of cleavage between the true and false capsule or sheath of the gland is reached and only experience can tell us when we reach that point. It is very desirous, also, not to penetrate the true capsule as this would spoil our prospect of enucleating the entire gland, intact. When we burrow to just the proper depth the gland usually begins to shell quite easily, which is a very good indication that we are in the right stratum. Some glands have more and denser trabeculae passing from the true to the false capsule, which makes enu-

enucleation more difficult. Once the right lead is reached the finger burrows to the side and back as far as possible and then the finger is worked across to the other side and the enucleation continued the same on that side. By sweeping the finger behind and to both sides, and across the front of the gland it is finally loosed so as to be attached by practically nothing but the urethra which is broken across. The gland is now entirely loosened from its bed and is free in the bladder cavity. The story about saving the prostatic urethra is a myth in most cases at least, but its destruction seems to do no harm as far as a satisfactory result is concerned. However, one should get as far back from the triangular ligament as possible and save all of the urethra possible. During all of these manipulations we have had the catheter as a guide on which to work, and it is indispensable.

The gland being now free in the bladder it remains to remove it through the small hole therein. With a tenaculum or other forceps it is securely grasped and gradual traction will usually get it through the small opening. It might be necessary to enlarge the opening somewhat. The bladder is now irrigated with hot permanganate solution and its cavity again explored with the finger to be sure no large clots or other foreign material remains. One might loosen a fragment or lobe of the prostate itself, especially where he has been unable to get it enucleated as one complete mass. The cavity from which the prostate came is patted down with the finger, no stitches being used and we are ready to place the drain.

We use the plain soft rubber tube advised by Freyer of $\frac{3}{4}$ or $\frac{7}{8}$ inch diameter. It is not always easy to obtain a tube large enough. The supply houses have a regular Freyer tube ready to use but charge the sum of \$3 for it, so I have always been satisfied to use the ordinary tubing cut to fit and have found it satisfactory. It has perforations on opposite sides near the end to be inserted in the bladder and it should be just long enough to reach about $\frac{1}{2}$ inch in the bladder and from there well on the skin. It should never be placed farther into the bladder than just enough to be sure it will stay in. Usually the

tube just about fits the hole we have made in the bladder wall and does not really need any inverting stitches, but we commonly place a soft gut stitch just above and another just below the tube inverting the bladder wall next the tube, believing that it may hurry closure after the tube is removed. One of these we catch in the side of the tube. Another soft gut stitch is passed through the edge of the skin picking up the tube also. These two stitches hold the tube in place, keeping it from sliding in or out.

A gauze wick is now inserted in the space of Retzius and the wound closed by two or three silkworm gut through-and-through stitches. The skin is dried and well smeared with oxide of zinc ointment from the tube outward over a wide area to protect the skin from urine which from now on will come via the tube. A very "copious hygroscopic dressing" is applied and held in place by two "butterfly" ties. The catheter is now removed and the patient put to bed with shoulders well raised.

Every precaution is taken against hypostatic lung trouble by changing position often, raising the shoulders and the patient is gotten out of bed into a great chair in four or five days. Liquid food is given as soon as recovery from the anaesthetic takes place, which is usually not very long, especially if gas-oxygen has been the main anaesthetic. The wound is dressed every three or four hours and the skin kept well protected with oxide of zinc ointment. All of the urine comes via the tube on to the abdomen, and we hope for it to and expect it to for twelve days or more. Each morning the bladder is irrigated with warm permanganate of potassium by means of a fountain syringe with a glass tip inserted in the drainage tube, allowing the lotion to flow in and out easily with no pressure. The gauze wick is removed in two days, the rubber tube in five days and the stitches in eight days. After the tube is removed, the daily irrigations are continued by carefully inserting the glass tip of the irrigator down into the suprapubic opening, allowing the lotion to fill the bladder and expel itself alternately without any great pressure. At the end of ten days irrigation is commenced by Janot's

method, which consists in using a blunt tipped glass urethral irrigating point attached to a fountain syringe loaded with 1-1000 permanganate solution, holding the tip firmly against the urethral orifice and having the nurse raise the irrigator until the pressure is sufficient to force the lotion into the bladder and out through the suprapubic opening. This is continued until the lotion comes pink and clear. It will be dark-colored at first from oxidation of the debris in the bladder. These irrigations are continued until urination commences, which we expect in 14 days, when they are discontinued. I have had two cases which we were unable to irrigate this way and in which we were forced to use a soft rubber catheter. This is very undesirable, however. These particular patients complained of pain from the pressure of the urethral tip against the meatus. As soon as urination starts, the suprapubic opening closes rapidly, frequently in a day or so. There is usually pus in the urine for some time after apparent recovery. I have had very little opportunity to check up the urines of these patients any great length of time after operation because they usually leave me when they leave the hospital.

To summarize, the points of outstanding importance in this work are: 1, Preliminary observation and preparation; 2, Conservation of time under anaesthetic and care in choice of drug and administrator; 3, Small, high bladder opening; 4, Large, carefully placed drainage tube; 5, No catheter to be left in bladder after operation, and none to be used after operation; 6, Detailed after care as outlined or described above.

R

The Modern Conception of Diabetes Mellitus

C. F. MENNINGER, M. D., Topeka

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The improvement that has been made in the treatment of diabetes mellitus in the past few years is greater than in any other acute or chronic disease. It has created a justifiable hopefulness for the curability of that disease. No student of medicine can fail to be impressed by the statistical facts concerning diabetes in recent years, or fail to gather hope

for the future from this steady reduction in mortality.

This passing of the cloud of pessimism of the curability of diabetes mellitus is due to five changes in the handling of the disease; (1) the new methods of treatment inaugurated by Dr. Frederick M. Allen; (2) the more accurate tests for the estimation of the presence and severity of acid poisoning; (3) the abandoning of the routine use of alkalies; (4) through the early and repeated measurement of the amount of the excess of blood sugar; (5) and the conception of diabetes not merely as a glycosuria or an inability to assimilate glucose, but a disease in which there is an abnormality in the metabolism of the protein and fat as well.

The recent improvement in diabetic treatment as shown by the statistics of the Massachusetts General Hospital:

Period.	Per cent.
1898 to 1914.....	28
1914.	16
1915.	12
1916.	8
1917.	6
1918.	4

This is an increase in the improvement of nearly 200 per cent for the period of five years. No other acute or chronic disease can show an advance in the results of treatment comparable to that demonstrated by such figures in the recent history of medicine. But the need of further improvement in the treatment of severe diabetes still exists. This fact must be courageously faced.

In order that this may be properly worked out it is necessary for us to have (1) a clear-cut idea of the essential nature of the disease; (2) knowledge of how acid intoxication—the arch enemy of the diabetic—can be prevented, and (3) employment of all of the most refined and accurate laboratory tests of the diabetic's real status.

In order to thoroughly comprehend and apply the newer methods of treatment it is absolutely necessary that we have clear-cut ideas of *the essential nature of diabetes*.

Diabetes is a multiple metabolic disorder of which the failure to utilize sugar is merely

one manifestation which only indirectly induces the fatal outcome.¹ Diabetes appears at first as a weakened function of carbohydrate (sugar and starch) metabolism; next there is a weakened function of protein metabolism and then in the severe cases an imperfect metabolism of fat. If we follow this plain simple idea, it guides us to a rational therapy. Diabetes is commonly looked upon as a progressive, fatal disease. Of course, in one sense it is a disease. But in another sense it may be beneficial to implant the idea in both physicians and patients that diabetes is not a disease. Allen considers that there is no evidence that it is an infection, or an autointoxication, or anything else of that order. He is not aware that an inherent downward tendency has ever yet been demonstrated in typical cases. For practical purposes he believes in keeping to the simple idea mentioned above, that diabetes is merely the weakening of a bodily function, namely the function of assimilating certain foods. If diabetes is a weakness of the pancreatic function, one can understand why the breakdown is most frequent in elderly persons, but generally most serious in young persons, as emphasized by Naunyn. If a person overtaxes a weak stomach, the resulting distress punishes the error and forces him to desist. If he overtaxes a weak pancreas, nothing but intelligence can show him what is wrong. But if the conception of diabetes as the simple weakness of a bodily function without inherent downward tendency is correct, then if the patient is obedient he may be kept from going down hill simply by preventing him from overtaking his weakened function. The weak pancreas may never become a strong pancreas. The patient may never be entirely normal again. If this idea is fully correct, this precaution may save life.²

By carrying out the implications of this simple statement of the essential nature of diabetes the afore-mentioned improvement in the Massachusetts General Hospital cases were possible. Such improvement I hold is approximately possible in private practice. At least it should be striven for in every case. This is the method I use in my cases of diabetes.

SUMMARY OF PROCEDURE IN DIABETES MELLITUS

Data Period

Get History—Family, past, general; school, social and private life; present illness and physical examination. Special diabetic history: Mode of eating, working, of business, overindulgences, worry, fears.

Take Blood—For cell count, Hgb. estimation, sugar and urea estimation, CO₂ or alkaline reserve, blood pressure, complement fixation.

Make Urinary Examination—For sp gr., albumen, sugar, diacetic acid, microscopically for red cells, pus, casts.

Instruction Period

Most important and covers a number of weeks. The patient takes a "course" in diabetic instruction.

Give Instruction—For the collecting of 24-hour urinary specimen, taken daily, mixed, measured and 6 to 8 ounces taken to laboratory.

Give Instruction—In the three-food constituents or normal diet, and what is essentially wrong with patient in his disease or diabetic diet.

Give Instruction—Of the nature of the treatment. No medicine, only diet; but absolute co-operation.

Give Instruction—Of special hygiene for the diabetic.

Give Instruction—Of the nature of the urinary tests for sugar and diacetic acid, teaching the patient how to make these tests, and

Instructing Him—That it is altogether up to him to get well, and being able to make these tests he can and must check himself. Physician merely supervising the case. Acidosis the result of lack of co-operation.

Treatment Period

Treatment Inaugurated—Patient on usual diet except for permanent withdrawal of all fats and sweets. Other C. H. and P. continued as before. After two days decrease P. and C. H. gradually, then fast four days, unless sugar-free earlier, allowing tea, coffee, broth, water. Intermittent fasting may be necessary.

When Sugar Free—5 per cent C. H. and P.; later 10, 15, 20 per cent. Blood sugar our guide for advance.

Add no Fat until P. is 1 gm. per kgm. body weight and blood S. normal. Add fat gradually. Alkaline reserve our guide.

Reappearance of S. demands fast.

Weekly Fast Days.

Daily—24-hr. urine.

Daily Blood Ex.—Sugar and CO_2 .

At some future time I will give in detail the various points in this summary which in this article must of necessity be omitted.

ACIDOSIS

The acids which accumulate in the tissue fluids in this disease are acetoacetic and beta-oxybutyric, and they are oxidation products of acetone. Acetone is derived from fatty acids by the faulty diabetic metabolism. The essential cause of the acidosis is therefore entirely different from that in nephritis; in nephritis the acids of a normal metabolism accumulate because of faulty excretion through the kidneys; whereas in diabetes foreign acids are added to the blood. For the thorough combustion of fat in the animal body a certain amount of carbohydrate must be simultaneously burned. Fat evidently is a less readily oxidized foodstuff than sugar; it needs the fire of the burning sugar to consume it. If the carbohydrate fires do not burn briskly enough, the fat is incompletely consumed; it smokes, as it were, and the smoke is represented in metabolism by the ketones and derived acids. Such a closing down of the carbohydrate furnaces may be brought about either by curtailment of the intake of carbohydrates, as in starvation, or by some fault in the mechanism of the furnace itself, as in diabetes.³

Acidosis is no longer treated by giving alkalies. "The results obtained since the routine administration of alkalies has been abandoned have been so satisfactory that I shall not willingly return to their employment," says Joslin. The administration of an alkali may give a false idea as to the severity of the case if one is guided by the urine alone. This shows how necessary it is to study the blood. Estimation of the blood CO_2 is not only more helpful but the only reliable guide for the degree of acid intoxication.

It is true that few instances show more strikingly the benefit of a drug than the

change from the drowsiness and exaggerated respiration of beginning diabetic coma to the reawakening which follows the administration of large doses of sodium carbonate. But in the modern ordinary treatment of diabetes such use of alkalis is almost never needed. It is safer, more agreeable to the patient and easier to bring about this disappearance of a slight or moderate acid intoxication by the omission of fat followed by fasting.⁴

The science of medicine advances by building up, confirming, or tearing down, refuting formerly established facts or seemingly established facts. The sides of the road of scientific progress are strewn with the wreckage of refuted facts. Science itself is built up of confirmed and reconfirmed data. So in diabetes mellitus we felt that we had reached nearly perfection in the various tests for the presence of sugar in urine, and having found or not found it, felt that we were absolutely safe in saying that diabetes mellitus was present or was not present, as the case may be. And now it seems that we had not reached that state of perfection of which we felt absolutely certain, at all. We now know that there are cases of diabetes mellitus without glycosuria. On the other hand we also have learned that the amount of sugar present in normal human urine is probably much greater than is indicated by the negative findings recorded on the basis of the clinical qualitative tests for sugar in common use. Here then we have doubtful status as to what constitutes a normal amount of sugar in the urine. What is the way out of this dilemma?

Only by securing new data which will confirm or reconstruct the deficient and lame facts.

Happily this we have been able to do by correlating the observations at the bedside with the facts ascertained in the laboratory by the analysis of the blood sugar. As a result of these observations and analyses we know that *hyperglycaemia may exist without any glycosuria*. And again we have a glycosuria without a hyperglycaemia. The appearance of sugar in the urine in cases of diabetes mellitus, it is assumed, is merely a matter of the threshold point, as it were, having been passed. The threshold point, that is, the

time when the sugar increase in the blood is accompanied by a pouring out of the sugar in the urine, is not a constant factor. It is usually above 0.17 per cent of blood sugar concentration. In cases where it could be accurately determined it lay between 0.17 and 0.18 per cent. In other instances the renal threshold was below 0.14 per cent, and these persons may have glycosuria after carbohydrate feeding even though the blood sugar curve is within the normal limits. These cases belong to the low renal threshold group. It has been established that there is a high threshold point in nephritis, but without any known cause, some nephritics have a low threshold point.

It is because of this inconstancy of the threshold point that blood sugar determinations in all cases of diabetes mellitus are so vital. A patient may be truly diabetic and may have kidneys relatively impermeable to sugar up to a very high point. Hence if only the urine were examined in such a case, the negative findings would not by any means justify us in eliminating the diagnosis of diabetes mellitus. On the other hand, the finding of abundance of sugar in the urine alone does not give us the real condition of the diabetic and the amount of starvation and dietetic treatment necessary to rid him of his glycosuria and his hyperglycaemia. Ridding a patient with diabetes mellitus of glycosuria does not indicate that he is in a state of carbohydrate tolerance. We must reduce his blood sugar to some figure around the normal of 0.08 to 0.12 per cent. If we can make him sugar free so far as the urine is concerned, together with a normal blood sugar content, then we have the case in a condition of the performance of a normal carbohydrate metabolism.

Every patient that is afflicted with diabetes mellitus has the inherent right to have the very best treatment that the science of medicine can offer. Diagnosis is a science; treatment is an art. When we have to do with an art whose aim is the saving of human life, to fail to make ourselves master of it is a crime.

Diarrhea in Bottle-fed Infants

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Inasmuch as the treatment of diarrheal diseases of infancy is chiefly dietetic, it is necessary for proper treatment that these disorders be classified, basing such classification largely upon the etiology.

In a general way there have been two schools, those who look upon all diarrheas from the standpoint of bacterial infection, and those who consider them due to chemical irritation from substances in the digestive tract and a resulting disturbance of metabolism.

For all practical purposes, I think a simple classification can be made to include all the common forms of diarrhea, and omitting those that are rarely seen and those of doubtful etiology.

Broadly speaking we may classify the diarrhea of infancy as follows:

1. Simple Intestinal Indigestion—A. Fat; B. Sugar; C. Starch; D. Protein.
2. Fermentative Diarrhea.
3. Infectious Diarrhea.
4. Mechanical Diarrhea.
5. Cholera Infantum.

INTESTINAL INDIGESTION

Simple intestinal indigestion results from too frequent feeding or over-feeding with a properly balanced food, or what is more frequent, feeding milk mixtures containing more fat, sugar, starch or protein than the infant can digest. The over-feeding with fat and sugar is much more common than with starch and protein. Often it is not possible to differentiate between these types of indigestion, because after diarrhea sets in the digestive capacity is so lowered that none of the food elements will be digested.

The feeding history and the character of the stools will usually give a clue to the trouble.

When fat is the disturbing element, there is often a history of feeding with top-milk or cream mixtures. If the disturbance is mild, the stools are not much changed in color but contain small soft curds and some mucus. When there is an excess of neutral fat, they are

1. Robertson, Prin. Biochemistry, 407.
 2. McLeod-Allen, Phys. & Biochem. in Mod. Med., 659.
 3. McLeod, Phys. & Biochem. in Mod. Med., 683.
 4. Joslin, Treatment of Diabetes Mel., 296.

gray and have an oily appearance. They are seldom green unless there is also a faulty sugar digestion. The temperature is usually not very high. In severe cases the stools are watery, strongly acid, of sour odor and cause marked irritation of the buttocks. In this case the fatty acids are in combination with the alkaline salts, particularly sodium, and with this great loss of fluid a relative acidosis develops, and the urine shows an excess of ammonia.

With sugar indigestion there is usually a history of feeding condensed milk, one of the proprietary infant foods or an excess of cane sugar in the food or water. Sometimes the infant may be upset because of a lowered tolerance for sugar, caused by the abuse of this element some time in the past.

Under normal conditions the small intestine is relatively free from bacteria, and down further in the large bowel there is an abundance of microorganisms of many varieties, two types with which we are especially concerned, the fermentative and putrefactive. Sugar is the substance most readily fermented. This occurs (1) when sugar is given in such large amounts that the small intestine is unable to take care of it, and (2) when the digestive capacity is lowered and the digestive juices are diminished—which is brought about by any debilitating influence such as parenteral infections, overheating, etc.

This excess of sugar that is not absorbed in the small intestine passes down into the large bowel and the fermentative bacteria of the large intestine, gain access and are allowed to flourish in the small intestine.

With improper digestion of sugar, volatile acids are formed, producing a chemical irritation of the intestinal mucosa. The stools number from five to ten daily, they are often foamy, have a sour odor and cause excoriation of the buttocks. The temperature in these cases is usually higher than those due to fat indigestion, and when the fermentation proceeds further we get the rather severe type of diarrhea known as fermentative diarrhea.

An excess of starch in the food gives a disturbance similar to that produced with sugar.

Protein indigestion is not common in bottle fed infants. The number of stools is not so

great as in the other type—four or five daily—the odor is foul, the reaction alkaline and it does not irritate the buttocks. This is sometimes called putrefactive diarrhea, because the putrefactive bacteria thrive on the protein. It is found where skim-milk, buttermilk or mixtures low in sugar are being used.

FERMENTATIVE DIARRHEA

In this type of diarrhea there is an exaggeration of the carbohydrate fermentation—spoken of as sugar indigestion. The fermentative bacteria gain access to the small intestine and thrive on the carbohydrates. This condition is usually seen during the hot weather. The stools number from 5 to 15 daily, are very loose, foamy, of a sour odor, containing a great deal of mucus and soft scraggley curds of undigested milk. The buttocks will usually be excoriated due to the excess of acid in the stools. The temperature is usually from 99 to 102 degrees F. In the more severe cases there is from 15 to 20 stools a day, the baby vomits and looks very sick. The abdomen, eyes and fontanel will be sunken, and the skin loses its elasticity due to the loss of fluids. Symptoms of acidosis may appear, consisting of rapid, deep breathing and the aromatic acetone odor of the breath. The mentality becomes dull, the baby ceases to recognize its parents, and is aroused with difficulty.

INFECTIOUS DIARRHEA

In this type of diarrhea, bacteria gain entrance to the intestinal mucosa. The onset is usually sudden, there is severe vomiting, great prostration and a high temperature, 104 to 106. The stools vary from 10 to 30 a day, they are very offensive, tenesmus is marked, and because of the ulceration of the bowel the stools contain blood and pus. The bloody stool makes the diagnosis positive.

The organisms commonly found in infectious diarrhea are the dysentery bacillus, gas bacillus and the streptococci. There is a very rapid loss in weight in this condition and after the first twenty-four hours the stools may consist of nothing but blood and mucous. The temperature usually remains high for several days.

MECHANICAL DIARRHEA

This type of diarrhea is usually seen in children above one year, and is due to the feeding of indigestible foods, chiefly raw fruit. Bananas, raisins, apples, orange pulp and insufficiently cooked cereals, such as oatmeal, are frequently found as etiological factors. In this condition there is an irritation of the delicate mucous membrane of the intestine, and the condition may terminate quickly in recovery, when the bowel is emptied by a cathartic, or a serious condition may develop when the mucous membrane is injured, paving the way for the entrance of microorganisms with the resulting severe toxemia with vomiting.

CHOLERA INFANTUM

I have placed in this class those very severe diarrheas characterized by sudden onset, high temperature, almost continuous vomiting, copious watery stools which quickly lose their fecal character and are colorless like rice water, and consist of blood serum almost entirely. The baby is soon drained out, collapse, coma and death follow within two days.

TREATMENT

Intestinal indigestion and many forms of mechanical diarrhea usually improve when the cause is removed. A cathartic should not be given as a routine, because in many mild cases it will aggravate the condition and in a weak emaciated infant that has no strength to lose from catharsis, it may reduce the patient to such a state that recovery will be almost impossible.

INDIGESTION

Sugar is the most laxative element in the infant's food. This should be removed entirely for a few days, or in selected cases in very weak infants reduced to a minimum. The fat should be reduced or removed entirely. A good plan therefore, in the management of these cases is to feed a dilution of whole milk and water, boiled together three minutes, using one part milk and two parts water. In a more severe case a mixture of equal parts of skim-milk and water, boiled together three minutes will be effective. Such a formula is high in protein, a constipating element, and

boiling makes it much more digestible and free from bacteria. The mixture should be stirred constantly while it is boiling.

Many cases of fermentative diarrhea yield to this treatment.

Protein milk, made by adding the curds of one quart of milk to one pint of water and one pint of buttermilk, is very useful in severe cases of indigestion where sugar has been the disturbing element. It also should be tried where boiled skim-milk mixtures do not give the desired results.

FERMENTATIVE DIARRHEA

One large dose of castor oil should be given to empty the intestinal tract, and all food withheld for from 12 to 24 hours. During this period of starvation, water must be supplied—either plain water or weak unsweetened tea. It is well to add bicarbonate of soda to the water in order to prevent, if possible, the development of acidosis. After the period of starvation, lactic acid milk, or protein milk should be given. The feeding should not be closer than three hour intervals in any case of diarrhea and very small amounts given at the start. When the baby has been accustomed to very sweet mixtures and refuses to take the food, saccharine may be used to sweeten the food, using about one grain to the pint.

MECHANICAL DIARRHEA

In this type of diarrhea a cathartic, preferably castor oil, should be given to empty the intestinal tract, and then 24 hours of plain water to give the bowels a rest. A careful diet of cereal water or gruels should then be given for the next few days gradually resuming the normal diet.

INFECTIOUS DIARRHEA

In this type of diarrhea in which pathogenic bacteria enter the wall of the intestinal tract producing toxins which overwhelm the baby and causing ulcerations with bloody stools, a cathartic should always be given. The bowel should be rested, giving nothing by mouth except water for twelve to twenty-four hours. These bacteria thrive on protein, therefore, theoretically at least, a carbohydrate diet is indicated. Barley water, made

by adding three level tablespoonsful of barley flour to one quart of water and boiling twenty minutes, is very serviceable.

The bacteria causing the diarrhea are putrefactive organisms. Another form of treatment in these cases is to change the flora of the tract from the putrefactive to the fermentative and thereby get rid of the causative agent. To do this we may give lactic acid bacteria in the form of fat-free buttermilk or lactic acid milk.

The treatment in cholera infantum is practically the same as that of infectious diarrhea. The excessive peristalsis and vomiting should be stopped if possible with the use of morphine hypodermically.

Drugs are of minor importance in diarrhea of infancy. When stimulation is needed, strychnine one three-hundredth grain may be given under the skin. Paregoric may be used where there is excessive peristalsis from nervous irritability of the bowel. It should not be used early when the temperature is high, but only after the bowel is thoroughly emptied and the stools are watery. It should be given in large doses for a short time. Bismuth has but little effect but to diminish intestinal fermentation and should be used in doses of 20 to 30 grains every three hours to a child of one year.

For high temperature, friction baths with alcohol and water should be tried and if there is no response a warm tub bath.

ACIDOSIS

In severe cases where there has been great loss of fluids and it is not possible to supply sufficient water by mouth, it can be given under the skin or in the peritoneal cavity. Usually water given by rectum is promptly expelled. Normal saline solution can be run into the peritoneal cavity by gravity, inserting the needle through the linea alba just below the umbilicus, directing the needle upwards.

Because of the depletion of body fluids and the intestinal toxemia there results a decreased alkalinity of the blood, a condition spoken of as acidosis. This follows a deficient excretion of urine with a retention of acids. As these acids accumulate and the respiration becomes

deep and rapid, the patient becomes comatose, the breath has a "fruity" odor of acetone, acetone and diacetic acid are found in the urine.

There is also an increased tolerance for sodium bicarbonate, the urine remaining acid in reaction even after the ingestion of one to two teaspoonsful. This is a very good therapeutic test.

The appearance of these symptoms calls for energetic treatment directed toward the alkalization of the body. It is necessary to clean out the intestinal tract at once. The stomach should be washed until the water returns clear, using a 5 per cent bicarbonate of soda solution and leaving three or four ounces in the stomach after washing. The large intestine should be emptied and washed until the fluid returns clear at least one quart of the soda solution run in slowly at a temperature of 100 to 102 F., repeating the operation several times, then leaving 8 or 10 ounces to be retained. Soda solution should be given frequently by mouth, using a teaspoonful of soda to three ounces of water and giving a tablespoonful of the solution every 15 minutes.

In extreme cases two ounces of a 5 per cent solution can be run into the vein. The medication can also be given subcutaneously but this becomes more technical as toxic substances may be produced in the sterilization of the soda.

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Postoperative Complications and Their Care

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

It is trite, but pertinent, to begin a discussion of this subject with the statement that the treatment of a great many postoperative conditions begins before the operation. Foreknowledge of all the pathology to be encountered and a proper preparation of the patient make for a smooth and non-eventful convalescence, satisfactory alike to patient and surgeon. Foreknowledge implies a careful history, thorough examination and complete laboratory findings. Proper preparation means absence of haste, the instilling of confidence, the overcoming of fear and dread, and an undisturbed and normal intestinal tract. The

preliminary hypodermic of morphine and atropine and the avoidance of gut disturbing cathartics are now routine in many hospitals, and are of great assistance in bringing about the last two conditions.

Equally important with pre-operative care is the conduct of the operation. Doubtless the greatest single factor in a normal convalescence is the surgical judgment of the operator, with his skill and surgical dexterity a close second. Errors in judgment and technique are responsible for many complications, their number varying directly with the experience and skill of the surgeon. This factor of error can only be reduced by insisting that every man who does major surgery shall have a proper apprenticeship and training.

Post-operative care and treatment, while important for the patient's comfort, is relatively unimportant in the production of complications. Its value lies in the early recognition, diagnosis and appropriate treatment of conditions as they arise. We will consider the following general complications:

INFECTIONS.

These may be localized or general and vary with their location and the infective agent. Prophylaxis is most important and goes back to the sterilizing room and the operating crew. Undoubtedly a careful survey of all the factors making for asepsis, will reduce the number of infections to a very small percentage, and this percentage may well be the criterion of the efficiency of the modern hospital. The active treatment is that of localization, early and thorough drainage and means to increase the resistance of the patient. We would emphasize the value of hospital standardization in reducing to a minimum post operative infections.

SHOCK.

Without going into the various theories as to the cause of shock, we may say that it is a matter of excessive tissue traumatism to the point where the system is no longer able to react. In spite of the most careful preliminary treatment and planning, we cannot avoid a certain percentage of shocked patients, either because of emergencies or on account of conditions necessarily fatal without extensive surgical procedures. In avoiding shock we should

minimize hemorrhage, block large nerve trunks, reduce traumatism of tissue to smallest amount and operate with the greatest rapidity consistent with safety. The active treatment consists of heat, quiet, morphine to control pain and restlessness, the avoidance of stimulants excepting possibly camphor and adrenalin, and the intravenous injections of fluids. Of these the most valued is transfused blood, but saline and glucose solutions may suffice in milder cases. Fluids by means of the bowel are supplied to all cases as routine.

Hemorrhage is closely related and is contributory to shock. It may be primary or secondary and when occurring within the first twenty-four hours is spoken of as reactionary. No complication so tests the nerve and judgment of the operator. An accurate diagnosis must be made from shock; not an easy thing in spite of parallel tables of symptoms, when an error may cost the life of the patient. Having to his satisfaction diagnosed a serious internal hemorrhage, prompt surgical intervention is without question the best and safest procedure. We can only urge that it be done before the condition of the patient becomes hopeless. Blood transfusion, both before and after operation, is our sheet anchor, and no serious operation where there is a possibility of excessive loss of blood should be undertaken without a suitable subject being on hand to act as donor.

INTESTINAL PARESIS.

This condition varies from mild gas pains to a complete paralysis with total obstruction. In the milder cases it is usually non-inflammatory, the severe types may or may not be a part of a general peritonitis. Its etiology is uncertain. Text books usually state that it is caused by undue handling and traumatism of the intestines with mesenteric traction. That this is not always true every surgeon of experience knows, as many of the worst cases of gas and meteorism occur in cases where there has been the least amount of intestinal manipulation, while other cases with extensive adhesions, requiring much handling and traction, will be entirely free of gas symptoms. At this place it is appropriate to touch upon the question of pre-operative cathartics. Many surgeons have entirely discarded all cathartics

before operation, claiming a greatly decreased amount of bowel disturbance. It is argued that the requirements for laparotomy are a flat empty bowel, and that in a large percentage of patients a cathartic will bring about distension and paresis due to the disturbance of the normal intestinal secretions and peristalsis. Why bring about exactly the condition we are striving to avoid? On the other hand many good men believe that the emptying of the bowel preliminary to operation will leave less material for fermentative and putrefactive changes. As competent a man as A. J. Oschner gives castor oil in all cases except those with peritonitis. Personally we believe in a restricted diet for two days previous, enema the morning of operation and no cathartics, and have had very little bowel disturbance.

The treatment of intestinal symptoms is most important, and nothing will have a greater bearing on the comfort and satisfactory convalescence of the patient than the proper handling of this condition. Following operation the rectal tube should be used as routine. Few patient with a row of sutures in the abdominal wall will help themselves in passing gas. Severe gas pains should be relieved by small amounts of morphine and atropine. We find but few surgeons opposed to the moderate use of opiates following operation. We have seen no harm and patients are given much needed rest and are able to help themselves by bringing the abdominal muscles into play. Surgical pituitrin is a most excellent remedy and except in high blood pressure has no contra-indications. The routine injection of from five to ten drops every two to four hours has been recommended following all laparotomies. We would hesitate to endorse this, however, considering the large number of cases in which no interference is required. Enemas, alone or in conjunction with pituitrin, are of great help and their use should be persisted in until relief is obtained. Severe distension with obstructive symptoms coming on a week after operation is usually due to inflammatory adhesions. This condition not yielding to other measures within forty-eight hours demands operative interference. If infection is present as in drain-

age cases, the distended proximal gut should be drained by means of an enterostomy. In clean cases every effort should be made to find and relieve the obstructing band of adhesions.

We are advocates of strict post-operative starvation. Nothing is so productive of gas and distension as too early feeding. We believe that until the intestines are flat and normal that a straight liquid diet without milk should be administered.

ACUTE DILATATION OF THE STOMACH

We have as yet no satisfactory explanation of the cause of this rather unusual but serious complication. It may follow any kind of abdominal operation and is essentially a high obstruction, probably duodenal. The important thing in treatment is the early diagnosis, and it is urged that as a routine measure in every case of vomiting or abdominal distension, the stomach tube be used early and persistently, making sure that the stomach is kept empty. In a large series of cases in which this has been done the percentage of cases of dilatation of the stomach has been reduced to almost nothing. The condition is one which, treated early, may be prevented, but once the stomach has become distended to fill the entire abdomen, is very hard to handle. The patient should be placed either upon the right side or the prone position, and in advanced cases we should persist in either frequent or continuous gastric lavage. Operative treatment has not proved successful.

LUNG COMPLICATIONS.

These form a very important group and occur in from 4 to 6 per cent of all abdominal operations. At the present time this percentage is being reduced and by careful consideration of the etiological factors it may be further decreased to a much smaller figure. In order of frequency the complications are broncho-pneumonia and bronchitis, lobar pneumonia, pleurisy, and lung abscess. The etiology may be grouped as follows:

1. Conditions which cause an abnormal number of bacteria or amount of infective material. These are lung infections as bronchiectasis, incipient but active tuberculosis, infections of the sinuses of the head, pyorrhea and other mouth infections, aspiration of feculent material in cases of strangulated hernia

and other obstructive conditions, and in operations on the nose and throat. Also visitors and nurses who are carrying colds and respiratory infections.

2. Conditions which lower the resistance of the tissues to infection. These are prolonged anaesthesia, prolonged exposure of the peritoneum, restriction of normal abdominal breathing with accumulation of bronchial secretions and tendency to hypostasis, chilling of body both during and after operations and the general lowering of body tone due to loss of blood and shock. It would seem that efforts along preventive lines would well repay as most of the causative factors are more or less under our control. Local anaesthesia, the encouraging of deep breathing, massage and change of posture, the prevention of chilling, the preliminary cleaning up of all foci of infection, and a minimum amount of anaesthesia will reward the surgeon with a decrease in these troublesome and dangerous complications.

Post-operative phlebitis occurs often enough to require attention. It is much less frequent at the present time than formerly when all operated cases were kept in bed from three to six weeks. Getting patients out of bed early has greatly reduced the number of these cases. While causing a high degree of discomfort and prolonging the period of illness, it is not often a dangerous complication. Abscess is rare and when occurring is usually localized.

ACIDOSIS.

This complication occurs to a greater or less extent more frequently than is usually recognized, following major surgical work. The mechanism is apparently twofold; first, there is an increase in the formation of acids brought about by increased metabolism, which is due to excessive activity of the adrenals, these in turn being stimulated by shock, hemorrhage, anaesthesia and nervous excitation; second, there is interference with the normal body defense against acids. Our system disposes of acids through the mechanism of respiration, by means of the kidneys and through the formation of a neutralizing body alkali. Many of the operative procedures interfere with this defence. The symptoms of acid intoxication are increased respiratory move-

ments, sweetish odor of breath, nausea and vomiting, and in more severe cases, delirium, stupor and coma. The urine shows large amounts of acetone with traces of diacetic acid. Three things are available in the treatment of this condition, prophylaxis, alkalis and carbohydrates. Patients who give a history suggestive of acidosis such as dyspnoea, periodical headaches and vomiting with abnormal fear of operation and who show increased acetone in the urine and on the breath should have preliminary treatment consisting of a diet largely carbohydrate, no fats and few proteins, together with sufficient alkalis to bring about an alkaline urine. Sodium bicarbonate by mouth and rectum should follow operation. Cases which develop acidosis following operation should be given four per cent glucose solution intravenously, and sodium bicarbonate with saline subcutaneously. Alkaline medication should also be given both by bowel and where possible by stomach.

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Intussusception

A CASE REPORT

J. T. SCOTT, M. D., St. John, Kan.

In intussusception there is a prolapse of a portion of the intestine into an immediately adjoining portion. Certain portions of the intestine are particularly liable to be involved but the invagination may take place in any part of the gut. The small intestine may be involved, the enteric form. The colon alone may be involved, the colic type. The most common form is prolapse of the cecum and more or less of the ilium into the colon, the valve forming the apex of the tumor, the ileo-colic type.

The cause is practically unknown. Meckel's diverticulum has been known to cause it, congenital malformation has produced it, a thickened Peyer's patch has supposedly caused it. Kerley states that nearly all the cases occur in well-nourished, vigorous, breast-fed babies.

The majority of cases occur between the third and ninth months. Cases have been reported in babies not over ten days old. Holt has collected 358 cases with the following statistics: 28 cases under 4 months; 113 cases

from 4 to 6 months; 71 cases from 7 to 9 months; 18 cases from 11 to 12 months; 32 cases from 1 to 2 years; 96 cases from 2 to 10 years.

The symptoms are sudden onset with pain paroxysmal in character and vomiting, marked prostration much more pronounced than in ordinary gastro-intestinal trouble. The child is pale and a tendency to cyanosis. The pulse is usually rapid and small, but may be slow and weak. Symptoms of severe shock are always present. Frequent vomiting, regurgitant in character. Everything taken into the stomach is regurgitated. The bowels may move just before and a time or two after intussusception occurs, after which nothing passes but brownish or greenish mucus tinged with blood. The amount of blood varies from a slight tinge or streaking of the mucus to passages of practically pure blood. Prostration is extreme and increases so rapidly in some cases that death from shock results before an operation can be performed. There is usually early distention of the abdomen, although in some cases the abdomen remains flat and palpation is readily accomplished. There is rarely a rise of temperature above 100 F. and it is often subnormal. In a case seen and carefully examined early a sausage-shaped tumor can always be made out. This in connection with the symptoms detailed above justifies a positive and immediate diagnosis. If several hours or days have elapsed the accumulation of gas in the intestines may render palpation of the tumor impossible. Where the other symptoms point to an intussusception the child should be anesthetized when examination will reveal the tumor.

Kerley says there is no satisfactory excuse for so many failures in diagnosing intussusception in infants. The reason for failure to appreciate the condition is because physicians too readily interpret active vomiting, with green mucus and bloody stools as significant of gastro-enteric intoxication. The classical symptoms, which are present in every case, and should be familiar to every physician, are sudden vomiting in previously well infants usually breast-fed; shock and collapse out of proportion in severity to other symptoms; mucus stools streaked early with blood; no

passages of fecal matter or flatus; paroxysmal pain and regurgitation of all food and medicine; sudden distention of the abdomen in most cases. These together with the presence of a tumor which can be felt either by abdominal palpation or in the rectum serve to make the diagnosis early and certain. Rectal examination should always be made.

Early diagnosis and prompt surgical intervention are the two factors favorably influencing prognosis. The chance of a successful termination decreases rapidly with each hour the condition is allowed to continue. What is done must be done quickly to be successful. There are two factors responsible for the high mortality—50 to 80 per cent—the tender age of the patient and failure to make an early diagnosis. More than 50 per cent of the cases recover when diagnosed early and promptly operated. When the condition is allowed to continue for days or weeks there is always great exhaustion, extensive adhesions and probably gangrene of the involved portion of the intestine, with little hope for successful treatment.

There are two methods of treatment, water pressure and surgery. Preparation for surgical intervention is advisable before attempting reduction by water pressure, which is very rarely successful, although an attempt at relief by this method is always advisable. The patient is placed on the back with hips slightly elevated, a small rectal tube is inserted into the rectum and normal salt solution injected from a fountain syringe, and if there is a tendency to expulsion a small wet towel is wrapped around the tube and gentle pressure applied. While the water is flowing the mass is gently manipulated in an effort at reduction. This should not be continued for more than a few moments and if unsuccessful the abdomen should be immediately opened and such steps taken as the condition of the parts justify. In recent cases it is often possible to evert the invagination. If adhesions have formed to any extent this will not be possible, and the choice is between a resection and the formation of an artificial anus above the point of obstruction. If there is a gangrenous condition resection becomes, of course, imperative.

The following case which was successfully operated illustrates the ileo-colic form which is much more frequent in occurrence than all other forms combined.

Was called to Doris B——, girl, age 9 mos., at 10:00 a. m., June 20th. She is breast-fed and although small has been healthy from birth. The mother states that she slept during the night and seemed perfectly well until just before I was called when she cried as if in pain, vomited freely and passed a little mucus with considerable blood. There was subnormal temperature, marked pallor, slow, weak pulse, spells of restlessness, accompanied by vomiting. The bowels were flat and no tumor was at this time felt. Bowels had moved naturally a short time before the attack. I considered it an ordinary gastrointestinal condition, although there was the appearance of shock. I prescribed cholera infantum tablets, alternating each hour with a colic tablet of fennel and soda. During the afternoon I called and found conditions apparently improved, although there had been no bowel movement, a spot of blood on each napkin removed and all food and medicine regurgitated, sometimes immediately after swallowing and at other times after retention for an hour or two. The following day, June 21st, conditions were unchanged except that a sausage-shaped tumor could now be palpated in the left side between the crest of the ileum and the splenic flexure. I immediately attempted relief by water pressure, and was able at this time to feel the mass in the rectum with the ileo-cecal valve presenting. She was taken to the Axtell hospital at Newton and a laparotomy performed at 8:45 a. m., June 22d, less than forty-eight hours after the initial attack. The following is taken from the hospital record made at time of operation: A mass was found near the rectum extending up almost to the splenic flexure. By squeezing the lower part of the tumor the mass went up a little at a time until the appendix was exposed, showing that the ileum had invaginated from the valve to the rectum. Two places were broken in the peritoneum by the work of reduction. These were closed by silk Lembert sutures. There was no gangrene and no organic adhesions. The

cecum was thickened apparently from pressure. Peristalsis and pain were controlled by 1-64 gr. of morphine hypodermically and the baby was encouraged to nurse early. The following morning the bowels moved naturally and gas was passing freely before that time. Recovery was rapid and uneventful, and today, one month after operation, success seems assured.

—————R—————

LAW FOR THE DOCTOR

LESLIE CHILDS

Are the Services of a Physician a Valuable Thing Under a Statute Which Prescribes a Penalty for Obtaining a "Valuable Thing" by False Pretenses?

(Copyright 1919 by Leslie Childs)

The above question was passed upon by the Supreme Court of Mississippi in the case of State vs. B. B. Ball, 114 Miss. 505. The case was unique because of the point of law involved. It was also interesting, and not entirely devoid of humor, because of the facts which were substantially as follows:

It appears that B. B. Ball was in the market for some medical services, and that he was not in a position financially to pay for them at the time. He therefore represented to Dr. J. B. Magee that he was the owner of one red cow about two years old, and agreed with the doctor that in the event he (Ball) failed to pay for the services on or prior to a certain date that the doctor was to have the cow.

It further appears that the doctor rendered the services to the value of fifteen dollars, and that Ball failed to pay for same. We take it by implication that thereafter the doctor demanded the cow, and, no doubt much to his surprise, learned that Mr. Ball never owned such an animal, nor one that even remotely resembled the animal so vividly described by him when applying for the services.

This discovery of the perfidy of Ball appears to have aroused the doctor's righteous indignation. In any event, the following affidavit was filed against Ball under a penal statute providing for the punishment of those who obtain "any money, personal property,

or valuable thing, by false pretenses. . . . Then and there knowingly . . . and with unlawful intent and purpose to cheat and defraud one J. B. Magee, a medical doctor, represent, pretend, and claim to the said Magee that he, the said Ball, was the owner of a certain red cow about two years old, and that for medical attention rendered or to be rendered the said cow should become the property of the said Magee, unless the said Ball should pay said Magee the sum of fifteen dollars for said services. . . . when in truth and in fact the said Ball at said time did not and knew that he did not own the said animal or any other animal of a like description.

"And by reason of the said false representations, . . . did then and thereby procure . . . medical attention to the value of fifteen dollars, which he otherwise would not have received . . . and against the peace and dignity of the state of Mississippi."

Ball was tried and convicted in the justice court, from which he appealed to the circuit court. The latter court decided in his favor by sustaining a demurrer to the affidavit for want of sufficient facts. In other words the circuit court held that the services of a physician were not "a valuable thing," or subject to be obtained by false pretenses, under the statute in question.

The state appealed from the ruling of the circuit court and the supreme court in passing upon the point raised, said: "The exact question raised in this case is whether or not the professional services of a medical doctor is 'personal property, or valuable thing, or, to present the point more sharply, are the services of a physician 'a valuable thing?'"

". . . We think the object of the statute is primarily to reach the mischief or fraud or deceit practiced by one person upon another in obtaining something of value by such deceit or false pretenses. . . . In the case before us the thing obtained by the false pretense and deceit was the services of a physician of the value or worth of fifteen dollars. . . .

"The services of the wage hand in the field or the employee in the factory or the professional services of the lawyer or doctor are

valuable. . . . Therefore the services of the physician in this case is a 'valuable thing,' and when obtained by false pretense and deceit the statute has been violated, and the guilty person is liable to prosecution thereunder. . . . This case is unusual in its facts, and is rather of minor importance so far as this particular case is concerned, and we hope that the old red cow will show up before another trial is had in the lower court, but we feel certain that the conclusion we have reached as to the principle of law involved is correct and sound."

—R—

BELL MEMORIAL HOSPITAL CLINICS

Clinic of H. R. Wahl, M. D.

Department of Pathology

NEPHRITIS ASSOCIATED WITH TERMINAL PERICARDITIS

The patient was a salesman aged 50 who entered the hospital with the complaint that he was "unable to sleep lying down." He dated his illness from an attack of influenza which he had six months before. Even slight exertion made him short of breath. His eyes were puffy in the mornings. Nocturia for the past year (5 to 6 times a night). Has had cramps in his legs for past twenty years. Recently noted swelling of feet. The man felt that he had lost at least twenty pounds in weight since his illness began. On physical examination the heart was found considerably enlarged and there was a systolic murmur heard all over the precordium. Blood pressure very high (150 diastolic and 270 systolic). Pulse was regular and not rapid. The arteries were hard. The liver extended five inches below the costal margin. Some edema of ankles present. There was also a marked carotid pulsation and also a distinct capillary pulse. A diastolic murmur was also noted over the base of the heart. The urine showed a moderate amount of albumin, granular and hyaline casts. The specific gravity was 1.015 on admission but gradually decreased while in the hospital to 1.005 and then returned slowly to 1.014 just before death. There was very little difference between the specific gravity of the morning and

the afternoon urine. The Mosenthal nephritic test meal showed that there was very little variation in the specific gravity of the urine at different times of the day; in other words the ability of the kidneys to excrete solids was diminished. The phenolsuphonephthalein test showed less than 10 per cent at the end of two hours (normal 60 to 80 per cent). The blood examination showed but a slight secondary anemia. The Wassermann test was negative. While in the hospital the blood pressure decreased but the edema became more marked and very troublesome. Twelve days before death severe pains appeared over the precordium. This later became less severe but persisted to his death. Went into coma a few days before death. He was in the hospital seven weeks.

The clinical diagnosis was chronic interstitial nephritis, aortic insufficiency, dilated aorta and dilated heart from loss of tone of the myocardium.

At the autopsy a general anasarca was noted. There was considerable free fluid in both the peritoneal and pleural cavities.

These organs were removed from the body and appear much as they did at the time of the postmortem. You will note that the most striking lesions is the enormous hypertrophy of this heart. Its weight including the pericardium and the arch of the aorta was 1340 grams. This is a typical "cor bovinum." It resembles more a beef heart than a human heart. The hypertrophy is not the only striking change. Note the shaggy, ragged appearance of the surface of the heart (cor villosum). You will note further that this shaggy material is adherent to the visceral surface of the heart, but can be torn off, leaving a granular surface underneath. This represents a typical fibrinous exudate showing beginning organization. The inner surface of the parietal pericardium shows the same coarse exudate. The fact that this exudate tears off with some difficulty indicates that early organization has developed and that the exudate is ten to twelve days old. On opening the chambers of the heart note the great thickening of the wall, particularly on the right side. In spite of this thickening the consistency of the muscle is soft. The

chambers, however, do not show exceptional dilation. If we examine the valves we find that they appear thin, smooth, and are apparently competent. The only abnormal change is the thickening and beginning calcification along the attachment of the segments of the aortic valve. The free edge, however, is normal. We also note that there is no noticeable dilatation of the ascending arch. The coronary arteries are slightly thickened. The aorta shows considerable sclerosis. The inner surface is roughened and there are scattered atheromatous plaques. You will also note that the elasticity of the vessel is very slight. Normally it is very elastic. There is no calcification nor is there anything to suggest syphilis. Also note that it is the left side of the heart that shows the most marked hypertrophy, while at the same time the right side is much larger than is normal.

The lungs are enlarged and the cut surface drips thin bloody fluid, indicating the presence of pulmonary edema. The liver is much enlarged, weighing 2200 grams (normal 1400 to 1600 grams). It has a mottled red and yellow appearance giving the so-called "nutmeg" liver. It shows intense congestion of the central zones of the liver lobules and fatty change in the peripheral zone, whence the mottled appearance. It suggests that the heart has not been able to handle all of the blood brought to it in the hepatic veins and inferior vena cava, with damming back of blood in organs drained by these veins. We also note that the spleen is also enlarged and congested. The splenic artery is very tortuous and sclerotic. The pancreas is small. The stomach and intestines show congestion, but otherwise show little worth noting.

Next to the heart the kidneys present a most impressive change. They both show the same change. Their combined weight is only 237 grams, much less than normal (at least 300 grams). Note with how much difficulty the capsule strips off. It should strip readily. When it is removed, note the granular, congested, roughened appearance of the surface. The organ cuts with increased resistance. The cortex is thin and the medulla is also much thinner than usual. Evidently there has been

considerable atrophy of the kidney substance. On closer inspection we ought to be able to distinguish the glomeruli as small congested dots, but we can not see them. Hence we are justified in concluding that they are damaged, and that a nephritis is present, and with the granular surface we feel sure that we are dealing with a chronic condition.

The histological examination of these kidneys is instructive. We find a marked increase in fibrous tissue, with a corresponding decrease in the number of convoluted tubules. We find that the glomeruli show various stages of hyaline degeneration and atrophy, and there is considerable diffuse, acute inflammatory reaction superimposed on these chronic changes. We also note hyaline casts in many of the collecting tubules. Microscopical examination of the heart wall is the only other section worthy of special mention. Here we find large hypertrophied muscle fibres, some of which are degenerated. But more characteristic is the exudate on the surface, which is made up mostly of fibrin and shows many new capillaries and connective tissue cells growing into it.

A number of interesting points come up in explanation of the clinical picture and its correlation with the pathological findings. In the first place what caused the enormous hypertrophy of the heart? The four important causes of cardiac hypertrophy are valve lesions, arteriosclerosis with hypertension, nephritis and chronic adherent pericarditis. Which of these played the important part in this case? It certainly was not the valve lesions because they are relatively insignificant, in fact with the exception of slight changes in the aortic valve they were normal. Could it have been the pericarditis? No, because the pericarditis was acute with no tough adhesions and secondly the pericarditis is not over two weeks old. This is much too short a time for the development of such a large heart. Such a heart requires months and even a year or more to develop and the increased work thrown on the heart must be persistent and gradually progressive. Was there sufficient arteriosclerosis present to account for the en-

largement? While the change in the aorta was not advanced changes in this vessel are not important in increasing the blood pressure. The important changes are scleroses involving the smaller arteries such as the splenic and radials, and these were found much thickened, but here again not enough to cause such a huge heart. As a general rule whenever a huge heart is found with no cardiac lesions and moderate or no sclerosis of the vessels always look for a small granular kidney, and that is what we have in this case. The cardiac hypertrophy is, then, due primarily to the chronic interstitial nephritis with the sclerosis of the smaller vessels increasing the work of the heart.

Why does nephritis produce cardiac hypertrophy? This has not been satisfactorily explained. Lack of time prevents me from discussing various theories that have been advanced. It should be noted that not all forms of nephritis are associated with cardiac hypertrophy. None of the acute forms, nor those chronic forms unassociated with high blood pressure, show a large heart. Apparently, the hypertension is an important factor, but whether the kidney causes this hypertension or whether some disturbance in metabolism causes both the nephritis and the hypertension, or whether the hypertension causes the nephritis is not clear.

The fact that the clinicians diagnosed an aortic insufficiency and no valve lesion was found is worth an explanation. This discrepancy is only apparent. There was a functional insufficiency of the valve brought about as follows: When the heart undergoes extensive hypertrophy the muscle fibres enlarge; this enlarges the muscular ring supporting the valve segments, but the latter do not increase in size. Hence they become too small for the opening and a relative insufficiency occurs and all of the signs of aortic regurgitation present themselves. This fact probably contributed to the work thrown on the heart and its eventual failure.

Most forms of chronic nephritis associated with hypertension are not accompanied with edema. Yet this was one of the striking physical signs in this patient. Two factors account for this. The edema was probably

due in part to the myocardial loss of tone and resulting passive congestion, and in part due to the acute nephritis superimposed on the chronic condition.

The relation of the specific gravity of the urine in this case is of more than passing interest. It showed very little variation at different times of the day. In a normal person the specific gravity of the urine voided in the night is much higher than that voided during the day. In some forms of chronic nephritis, especially those associated with marked hypertension, the kidney is unable to secrete a concentrated urine; in other words cannot secrete more than a limited percentage of solids, hence the specific gravity is almost constant. This forms the basis of the Mosenthal nephritic test meal. In this test the patient is given three meals of an average diet with fluids limited to 600 cc. at each meal and the urine voided every two hours and the amount and specific gravity of each specimen recorded. In a normal urine there is a marked increase in the specific gravity and decrease in the amount of the morning urine (night urine voided the first thing in the morning), while in chronic interstitial nephritis the amount and specific gravity shows little change. This test is regarded as a very valuable functional test of the kidney.

What is the relation between the kidney condition and the pericarditis? It is in the nature of a terminal infection. It is fairly common as a terminal lesion in chronic nephritis, especially of the type illustrated here. It is probably due to the fact that the resistance of the patient is lowered and the pericardium is rendered susceptible to the inflammatory action because of the mechanical injury to it from the constant violent beating of the heart against the hard sternum. Such injury would predispose the tissue to an infection, which, if once started, spreads rapidly to all parts of the pericardium. The early organization indicates that the exudate is about ten to twelve days old. This fits well with the clinical picture in that the patient complained of severe pain in the precordium twelve days before death. This pain was due to the onset of the pericarditis.

Drs. N. C. Speer and W. L. Speer, of Osawatomie, have recently opened a hospital at that place.

The occurrence of broncho-pulmonary spirochetosis is comparatively rare. This circumstance, together with the peculiar characteristics of the disease, makes it a particularly individual problem. The victims of this disease are apparently suffering from tuberculosis. They have recurring hemoptysis for months. Usually chronic bronchitis, with loss of weight, emaciation, and a chronic cough ensue. Hemorrhages sometimes last for weeks and then may stop for weeks. These cases are not tuberculosis, however, for upon examination of the sputum no tubercle bacilli are found, but large numbers of motile spirochetes. Bloedorn and Houghton in a report of three cases found that these organisms are more refractive and active than the *Treponema pallida*, and that they tended to be of two distinct types. One type was thin, delicate, and threadlike, with more regular and numerous undulations; the other type was coarser, with few undulations and heavier staining.

There has been little investigation made upon this disease. Castellani first described it in 1906. Since then there have been reports of cases occurring for the most part in the tropical climates. It is probable that the disease is more common in the United States than is realized, but because of its close symptomatic resemblance to tuberculosis, it is seldom recognized until the sputum is examined and the characteristic organism identified. Cases respond to treatment with the arsphenamins very readily. There have been cases which when treated for tuberculosis were considered hopeless but when treated with arsphenamin have recovered completely.

In view of the fact that this disease is more prevalent than is realized and that it does respond to treatment, it is important that every case of supposed tuberculosis that does not show tubercle bacilli in the sputum should be carefully examined for spirochetosis and syphilis. Prompt and intensive treatment with the arsphenamins may be expected to produce well-nigh miraculous results.

THE JOURNAL *of The* Kansas Medical Society

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The Ideal Physician

A half century ago the ideal physician was one whose training and experience encompassed the whole field of medicine and surgery; one who was competent to treat all the ills of his patients.

At this time it would be a phenomenal intellect that could comprehend even a large part of medical science. The ideal physician of this age is one who is able to evaluate and to correlate the historical facts and the diagnostic evidences that are supplied to him by those who have been specially trained and are qualified in the various departments of medicine.

But since without these skilled assistants such an one is comparatively helpless, our conception of the ideal physician must be comprehensive enough to include these. In other words, the ideal physician of today is not one man, but a group of men, who by their combined knowledge and training and experience are able to diagnose and treat all the ills of men.

A specialist, however, or even a general practitioner, who has devoted much of his time and study to a particular class of work, tends to develop a myopic mental vision. He sees only the conditions which come within his ordinary field of work and is apt to magnify these.

A group of specialists, then, without a

leader whose general knowledge and experience is superior to all the others, is as helpless as such a leader without the assistance of the specialists.

The ideal physician of a half century ago materialized as frequently as does the ideal of today. Many groups have been formed, but for various reasons most of them have failed. The factors which are required to make up the ideal group are neither numerous nor easily assembled.

There are many difficulties to be met in the organization of a group which will approximate the ideal. Men who are competent to do creditable work in such an organization are not easily induced to break away from a well-established business for an enterprise which offers no guaranty of permanency. Men who have an established reputation in a special line of work do not readily submit to such a censorship of their opinions and their work as a successful group practice requires.

Some of the most successful groups have found it expedient to train and develop their special talent, but this takes time and is not a consideration in the primary organization. The simplest plan of organization, and one which is most frequently followed, does not constitute a group—at least an ideal group. A man of large practice or of large means, employs a number of assistants—recent graduates of limited experience and willing to work for a modest salary. Such an organization may approximate the ideal in time if the assistants have the ability to develop and can be retained until they do develop the competency and efficiency required for group practice. The financiers of such an organization must be able and willing, however, to advance the compensation of such men as their services increase in value, otherwise the organization will fail to reach the status of a true group.

The business side of the group seems to offer the most perplexing problems. In such an organization as was just described the business is simplified, for all but the head of the organization are salaried employees. But in the ideal group where a number of men of special ability and large experience associate themselves together the question of how each

shall be fairly remunerated is not easily determined. Few men would be willing to accept less than their net earnings in private practice, but granting each a salary equivalent to his previous net income there is still to be determined how the surplus, if any accrues, shall be divided.

If divided equally some will be too highly, and some too poorly, paid for the extra work they do.

It seems that a simpler and more equitable adjustment of the business side of such an organization could be found in the plans adopted by business corporations. A considerable investment is necessary to put such a group into working order.

If each member of the group should hold a certain amount of stock and the surplus be distributed as dividends, or if this might still leave some members inadequately paid, the dividend may be limited to a certain amount and the further surplus used to increase the salaries of those who have earned it.

It is well enough to discuss matters of this kind now. It is well enough to determine now the best plans for such organizations, for group practice is the inevitable result of the rapid advances in medicine.

CHIPS

It is the sialagogue in the mouth that preserves the teeth of the tobacco chewer.

"Don't take too much advice. It may save you trouble." But if your success depends upon acting on advice it takes the pep out of your soul and the initiative out of your thinking apparatus.

Morris suggests that a medical student, attending a medical college, board in a family in which a foreign language is spoken.

The chronic gum-chewer develops the masseter muscles and acquires the chipmunk face.

Morris (Bob) says: "The inch-and-a-half incision results in the week-and-a-half confinement in appendicitis. Such surgery requires finger thinking in addition to thinking with the brain. Finger thinking is tactile sense cultivated. Tactile sense is acquired by experience. By the time the average sur-

geon gets this dual education he is dead. But it's the goal.

Ulceration of the enteron is toxic, largely, hence serum treatment would seem to be indicated as the curative agent in people who are predisposed to ulcer of the stomach or intestines.

The up-to-date medical man must keep himself on tension or he will soon be a has-been. "if he don't watch out."

There is accumulating evidence that dental caries is favored by the increased consumption of sweets.

There are two things worth noting and the why of them deponent saith not: First, The nation knowing the least about hygiene and diet is the most populous nation. Second, millions of people who never saw a tooth brush have the best teeth. And the millions of people who use the tooth brush have the worst teeth.

It is a bad practice to set a patient spying on himself for symptoms of disease. It is like a man looking for trouble. He finds it.

The sewed smile has arrived. It is surgical, in that it is made by stitching the corners of the mouth together and narrowing the abnormal oral fissures. The big mouth will soon be tabooed. Aside from the sewed smile, this sucker-fish mouth enables one to whistle without puckering the lips.

The regular medical profession, as a whole, is not entirely free from blame for division in its ranks; and for isms and athies, and a certain degree of lack of faith in it, and canny suspicion on the part of the public. It has not displayed the wisdom of self-protection shown by those little beasts of burden, the little he-haw, he-haw wild animals on the African plains. It is said of these little brutes, when they are threatened by an enemy, that they congregate in a circle with their heads toward each other and their kicking apparatus in situ on the outer side of the ring, and defend each other. The regular medical profession in the formation of its ring for self protection has too many members facing the outside of the circle.

The corset is a Godsend to the physician and a means of prevention in our populating the earth with the human. The corset supports the abdominal walls and relieves the muscles from exercise and tension in supporting the weight of the viscera and keeping it in place. The corset, also, squeezes the viscera and internal organs out of their normal position. By non-use the abdominal muscles become flaccid and when the corset is removed, sag-belly is present. This alternate pressure and sagging favors congestion and displacement of the reproductive organs in the female. The sagging of the viscera causes evolutionary hyperplasia of tissues of natural supports and the vicious circle is established, to be broken up by the gynecologist, who with dame nature penalizes the criminal by a life of invalidism and sterility. Complementary to the corset is the high-heeled shoe. Wearing the high-heeled shoe tends to flat and web-foot, and talipes equinus. These fashions of dress make the evolutionary trend toward self-elimination of the specie; and the petering-out ones, or left-overs, will be classified as belonging to the web or cloven-foot species—possibly a variety, if enough resemblance remains. The changes already in the human anatomy are demonstrable proofs, to the observant physician, of man's origin from the babboon. It also shows the tact nature takes, when offended by her creatures' interference, in her masterly inactivity. The Noah plan of getting rid of man by drowning didn't work, so nature has left man to his own devices and he is getting results.

Armour & Company announce the addition of the following preparations to their list: Suprarenal cortex, suprarenal medulla, placental substance. Physicians desiring to use these products may get them from headquarters for the organo-therapeutic agents.

It has been left for the west to teach the world humanity in punishment for crime. The last legislature of Nevada decreed that deadly gas should be used in executions. Prior to that time a man condemned to death had to choose between being shot and being hanged. Under the present law the condemned are confined in cells which are connected by in-

visible pipes to large gas tanks. The sentence provides that the death shall take place during a certain week. Some time during that week, the time being unknown to the condemned, he is given a meal containing a strong opiate. When he goes to sleep the gas is turned on.

There remains little doubt that a potent remedial agent for leprosy resides in some of the fatty acids that can be separated from chaulmoogra oil. The first larger group of successful cases were treated with the mixed ethyl esters of chaulmoogra oil acids carrying 2 per cent of iodine in chemical combination. Intramuscular injections were supplemented by oral administration of a similar product. In later series the iodine was omitted without noteworthy difference in the favorable outcome of the treatment, and the oral administration has been discontinued because it gave no added advantage with respect to the results obtained. Two definite constituents of chaulmoogra oil—chaulmoogric acid and hydnocarpic acid—have been separated and employed in the form of esters therapeutically with obvious success.—*Jour. A. M. A.*, July 23, 1921, page 292.

Dr. H. N. Cole criticizes the claims made for spirocide by the Spirocide Corporation. He points out that the inhalation treatment is not new but has been used since 1506, and has been given up by almost every trained syphilographer for many years because of the fact that it is not only irritating to the lungs but also dangerous and of uncertain dosage. Dr. Cole also comments on a card sent out by the Spirocide Corporation which shows a blood smear from a syphilitic patient containing *Spirochaeta pallida* and *Spirochaeta refringens* in rather larger numbers in comparison with the number of red cells shown. He states that it is a well-known fact that even in secondary syphilis it is almost impossible to find *Spirochaeta pallida* in the blood smears. In his many years of work with syphilis he has yet to see the blood smear from a case of secondary syphilis in which *Spirochaeta pallida* were found, and, he adds, why in such an occasion *Spirochaeta refringens* should be seen only the Spirocide Cor-

poration can explain.—*Jour. A. M. A.*, July 30, 1921, page 394.

In an elaborate research at the George William Hooper Foundation for Medical Research in the University of California Medical School, the possible influence of iron salts and other substances supposedly stimulating regeneration of hemoglobin has been studied under carefully controlled conditions of feeding. The results show that iron in the form of Bland's Pills is inert when given under controlled conditions in anemia periods under the conditions of the experiments. Ferric citrate and the organic "ovoferrin" gave no better results. Hemoglobin gave somewhat better results, but this effect need not be attributed to the iron in hemoglobin. Arsenic in the form of sodium cacodylate and as solution of potassium arsenite were also found inert. No drug tested compared with suitable dietary factors in securing a rapid regeneration of hemoglobin during anemia periods induced by simple hemorrhage. The results of this investigation give no support to the time honored custom of administering iron in simple anemia. The burden of proof for the value of iron salts (and of arsenic) in anemia now rests with those who claim that a given drug is potent in such conditions.—*Jour. A. M. A.*, July 30, 1921, page 379.

Dr. Alfred S. Burdick has been elected to fill the vacancy as president of The Abbott Laboratories, caused by the death of Dr. W. C. Abbott. He is a graduate of the Alfred University, Alfred, N. Y., and Rush Medical College, Chicago. He has been closely associated with The Abbott Laboratories for over seventeen years, and for the past six years has been vice-president and assistant general manager.

Accidents following the intravenous injection of arsphenamin, although uncommon, are very serious when they do occur. The author reports two cases in which the solutions of arsphenamin were injected into the nerve or the sheath surrounding it, severely damaging the nerve. Such cases emphasize the need to exercise extreme care in making injections. Pain radiating into the fingers when the first few drops of the solution are injected should

be a warning that the needle is not in the vein and that the solution is being injected into a nerve or into the tissue surrounding it. Arsphenamin injected into or about a nerve may have a marked destructive action, causing extensive degeneration of neuraxis and the development of large amounts of scar tissue. The densely adherent scar which follows sloughing of the skin, if such occurs, may seriously interfere with or render unsatisfactory a nerve suture.—Dean Lewis, in *Journal A. M. A.*, Vol. 76, No. 25.

In view of the established fact that diphtheria can be prevented with as much certainty as small pox or typhoid fever, it is disturbing to find that in certain communities the incidence of diphtheria is not on the wane. The procedure requisite for immunization is simplicity itself. Three subcutaneous injections, at intervals of about five days, of a mixture of toxin and antitoxin (Diphtheria Prophylactic, P. D. & Co.) is all that is needed to confer active immunity. Because of the time required to elicit the full immune response to Diphtheria Prophylactic, contacts should receive the usual protective dose of the more rapidly acting Diphtheria Antitoxin (Antidiphtheric Serum); Diphtheria Prophylactic may be given a few days later for more lasting effect. But for all individuals who have not been exposed to the disease, and for general prophylaxis in schools, hospitals, nurseries and other communities, the injection of Diphtheria Prophylactic is of itself sufficient.

The engorged mucous membranes, covering the turbinates and the nasal septum, if such mucous membrane is not distinctly polypoid, will invariably shrink under the application of a 1 per cent cocain solution, to which is added a third part of a 1-1000 solution of epinephrin chlorid. If the mucous membranes do not shrink perceptibly under the application of such a solution there is in all probability a syphilitic infiltration of the mucosa. The nasal mucosa is first sprayed with the solution after which pledgets of cotton immersed in the medicament are inserted into the nose. These are removed in from five to ten minutes. If the mucosa still obstructs

the nose, it is evident that there is some pathologic condition of this membrane which will not allow it to shrink, probably a syphilitic infiltration.

The author reported two cases. His concluding comments were: A Wassermann test should be made in all cases of nasal obstruction in which the obstruction is due to a thickened mucous membrane which will not shrink under the application of cocain and epinephrin.—Harold W. Hays, M. D., in *American Medical Association Journal*, Vol. 76, No. 23.

Official announcement of the membership of the Provisional Health Committee appointed by the Council has now been received from Geneva by the League of Nations News Bureau. The appointment of this committee represents a compromise designed to meet the difficulties created by the refusal of the United States to permit the Office International Hygiene at Paris, of which it is a guarantor, to co-operate with the proposed health organization of the league. The new committee which is to act as advisor to the Council and the Assembly on all matters of public health and to devise preliminary measures for the co-ordination of existing national and international health bodies, is made up of twelve experts selected by the Council as private individuals and with no regard to anything but their personal ability and standing. To these are added representatives of the International Labor Office and the League of Red Cross Societies designated by those bodies at the invitation of the Council.

The committee as now completed has the following membership: Dr. G. S. Buchanan, Great Britain; M. Velghe, Belgium; Prof. Madsen, Denmark; Senor Pulido, Spain; Prof. Leon Bernard, France; Dr. Charles Havelock, India; Dr. Alberto Lutraria, Italy; Dr. Yoneji Myagawa, Japan; Dr. Calmette, Morocco; Dr. Minbela, Peru; Dr. Chodzko, Poland; Dr. Carriere, Switzerland; Dr. Luigi Carozzi, International Labor Office; Prof. Winslow, League of Red Cross Societies. The absence of any American name on this list is noticeable.

As finally developed, the health organization of the League should have the following

objects; to act as a connecting link between the health authorities of all countries; to act as a clearing house for information concerning everything that constitutes a menace to public health; to form a sort of general staff when an epidemic threatens to overrun a number of countries to coordinate the efforts of the Red Cross societies in their work on behalf of "improvement of health, prevention of disease and the mitigation of suffering throughout the world" as prescribed by Article 25 of the covenant; to co-operate with the International Labor Office for "the protection of the worker against sickness, disease and injury arising out of his employment;" to advise voluntary organizations requesting assistance; and, finally, to establish health missions when asked to do so by the League of Nations or by any country belonging to the League

Dr. Wallace Calvin Abbott, who died at his home, 4605 North Hermitage Ave., at 1:30 a. m., July 4, was born in Bridgewater, Vermont, October 12, 1857. His early education was obtained at the State Normal School, Randolph, Vt., the St. Johnsbury Academy, St. Johnsbury, Vt., and Dartmouth College, Hanover, N. H. Coming west, he worked his way through the University of Michigan, winning his degree as Doctor of Medicine in 1885. The following year he engaged in the practice of medicine in Chicago, building up a large practice on the North Side and winning many friends. It was during this time that Doctor Abbott established The Abbott Alkaloidal Company, now known as The Abbott Laboratories, of which firm he was president continuously from the time of its establishment, more than thirty years ago, until his death. For several years previous to his decease, Doctor Abbott had been in ill health. Anticipating his active retirement from the large and successful business which he had founded, he placed the conduct of The Abbott Laboratories largely in the hands of his older employes, under a generous co-operative reorganization plan on which it has been operating for more than two years. Dr. Abbott was a man of broad vision and great energy. He was an organizer of rare ability, warm-hearted and beloved by his employes, busi-

ness associates and hundreds whom he had befriended. Doctor Abbott was a pioneer in the field of alkaloidal medication. He labored incessantly through his writings and personal contact with thousands of physicians, to bring about a more careful study of the patient and the treatment of separate symptoms as they developed as contrasted with the older method of treating disease names only. His influence upon the medical profession in this respect has been profound.

Increased intelligence and civilization lessens offspring. The brain develops at the expense of the reproductive organs. At any rate, this is true in the scale of animal evolution. Quantity first and then nature begins to differentiate in favor of quality.

"The mouth does not seem to be in adjustment with modern conditions." The mouth secretions are disturbers of the teeth and a source of disturbance to the whole body. The mucous membrane of the mouth does not have the protecting power in man and the domestic animals that it has in the wild animals. Hence there is not dental caries and pyorrhea only but through them other parts of the body may become infected. Hot vocalized air coming out of the mouth in excess or inadvertently is a fruitful cause of trouble and suffering also.

Of all professions the medical man "should keep alive at the growing point." "The minimum effort" should never satisfy. Premature dying at the top is hastened by following the line of least resistance. Moral: Keep the line taut.

Intestinal intoxication or toxemia is much more common than auto-intoxication.

It was recently reported by a lady who lives on one of the highways, that the man who had the contract for dragging about ten miles of road always hauled his drags to the farthest end of the road to begin dragging. But he was getting twenty dollars a day for it.

One who travels even a little over the roads in Kansas wonders where and how the money which is paid for automobile licenses is spent.

Those who pay for it have a right to ask that the roads be cared for.

The automobile club in Topeka has recently joined hands with the city authorities to see that traffic regulations are observed. Why should not the automobile clubs in the state make a little effort to see that the money paid in for automobile licenses is spent on road improvement?

The medical practice act of Illinois as revised in 1917 has been declared unconstitutional by the supreme court and the old law is again in effect. The court held that the revisions of requirements for chiropractics are unreasonable and discriminatory. The revised law required that all applicants for a license to practice should have the same qualifications and contemplated a course of four years in college. The court's opinion seems to be that it is discriminatory to require chiropractors to be as well qualified to treat the sick as other practitioners.

—R— EXCERPTS

BY THE PRODIGAL

"Blessed is the man that hath not slipped with his month." Criminologists tell us that "faculties which are constantly in use will become dominant in giving character to the mind and configuration to the head; that policemen, detectives and criminal lawyers recognize an element in the physical and mental bearing of criminals by which they suspect them."

It appears that some six centuries B. C. our forebears had an inkling of the effect of chronic criminality on the physiognomy, for we read in the Apocrypha in the Book of Ecclesiasticus, chapter xiii, verse 25, "The heart of a man changeth his countenance, whether it be good or evil; and a merry heart maketh a cheerful countenance." Verse 26: "A cheerful countenance is a token of a heart that is in prosperity. A good countenance maketh men happy." The writer of the Book of Ecclesiasticus in the Apocrypha must have been an old codger for he says "much experience is the crown of old men." He then jewels his crown of wisdom by saying, "A friend is lost by discovering his secrets." The writer was

a psychologist and had psychanalysis down pat, including psychalgia in nosetiology.

If he was a physician he wrote paradoxically or double crossed the profession, for he says, "Honor a physician with the honor due unto him for the uses which ye may have of him; for the Lord created him. The skill of the physician shall lift up his head; and in the sight of great men he shall be in admiration. Then give place to the physician." (The left-handed compliment?) "He that sinneth before his Maker, let him fall into the hand of the physician." P. S.—It may serve as a vent to the pent-up feelings of the regular physicians to know that the later translation reads "drugless healers" instead of physicians.

A doctor must have something to work against if he makes good in his practice (?). He has! But too often he looks upon opposition as a hindrance and a barrier to his success instead of using it as a stepping-stone to raise him up higher.

The most interesting part in the practice of medicine and the part that holds the attention of the live wires, is the constant and rapid change in the practice. No sooner has the physician adapted himself to a certain routine of practice than he has to re-adapt himself to another and better practice.

The doctor who cannot accommodate himself to the new environment falls by the wayside, and is in a class with the once-overs. It is related of "Massaria, of Padua, in the sixteenth century, that he would rather be wrong with Galen than right with any other physician." Massaria is dead!

Persistent, continuous, intelligent thinking is the road to success. Drifting leads a man in the wrong direction. The old preacher was headed toward Arkansaw. A native asked him where he was going. The preacher said: "I'm on my way to heaven." "Then, Mr." said the native, "you're sho' headed the wrong way."

Success may be a failure if the standard of achievement is too low. A student may get through Medical College by the skin of his teeth or by favoritism. And if so, he is apt to short-change himself ever after.

To be able to say of a man he was right a part of the time is a compliment. It is the same with a doctor in his practice.

It is not safe for a doctor to trust too much to appearances. It develops the animal reasoning in him. "Animals, low in the scale of intelligence, accept appearances," and govern themselves accordingly. Ditto man.

It strikes the average physician as a crime when he recalls and sees the indifference of the public in caring for the health of the human body and for the public health. This indifference is a heritage of the past, lingering in the lap of the present.

"How to Live," says "We in America inherit, through centuries of European tradition, the medieval indifference to the human body, often amounting to contempt. This attitude was a natural outgrowth of the theological doctrine that the 'flesh is in league with the devil,' and is the enemy of the soul."

In the Middle Ages saintliness was often associated with sickness. Artists, in portraying saints, often chose as their models pale and emaciated consumptives.

The medical profession thinks the opposite is true. And humanly speaking, believes that Creative Intelligence did its level best in making the human body; and since the Creator exhausted his artistic skill in fashioning man, and if man has any respect for his Creator's choicest handiwork, he should govern himself accordingly.

DEATHS

Wallace B. Kelly, Independence, aged 76, died July 22. He graduated from the New York Homeopathic and Flower Hospital in 1881. He had practiced in Independence about 35 years and was city physician many years.

SOCIETIES

Missouri Valley and Southwest to Meet in Kansas City

The Southwest and Missouri Valley Medical Associations will hold their joint session in Kansas City, October 25 to 28, 1921. Dr.

E. H. Skinner, of Kansas City, is the Southwest president, and Dr. W. O. Bridges, of Omaha, is president of the Missouri Valley. A four-day meeting is being planned with clinics in the various hospitals each morning and reading of papers in the afternoons. Five sections will hold sessions, comprising Medicine, Surgery, Obstetrics, Eye and Ear, and Genito-Urinary. Two general sessions will be held, and one evening session, when the orations will be given. Arrangements for clinics are being made by the officers and committees of the "Medical Veterans of the World's War," which body will be in session during the week. On Monday, October 24, the Mid-Western Association of Anaesthetists will be organized and present a program. Dr. Morris H. Clark, Secretary, Rialto Bldg., Kansas City, Mo.

As the number of papers will be limited, it is important that those members who wish to present papers should communicate their titles to the secretary not later than July 15. Dr. F. H. Clark, Secretary, S. W. Assn., Oklahoma City, Okla.

Headquarters and meeting place, Hotel Baltimore. The exhibits will be placed on the same floor with the assembly rooms. Firms desiring to exhibit should communicate with Dr. Charles Wood Fassett, Secretary, 115 East Thirty-first Street, Kansas City, Mo.

Reduced rates on the railroads.

A Symposium on Obstetrics

A post graduate day in obstetrics for district medical societies in the southwest is proposed by Dr. Geo. C. Mosher, of Kansas City, a member of the Council on Medical Education of the Missouri State Medical Society, and chairman of the Section on Obstetrics Southern Medical Association.

The first session was held at a recent meeting of the North Missouri District Medical Society at Brookfield. Papers covering some of the principal points in obstetrics were given by specialists and a forum held with a half dozen other topics proposed for general discussion after the set program. The program follows:

1. Management of Normal Labor, Francis E. Wilhelm.

2. McDonald and Ahlfeld Measurements in Pregnancy and Their Interpretation, Geo. F. Pendleton.

3. Toxaemia and Eclampsia, the Nightmare of Obstetrics, Geo. C. Mosher.

4. Treatment of the Posterior Occiput—Mechanical Delay in Labor, Buford G. Hamilton.

5. Some Red Lights in Obstetrics—Danger Signals by the Way, C. A. Ritter.

6. Inflammation of the Eyes of the New-Born—Modern Methods of Management, A. W. McAlester, Jr.

7. Immediate Repair of the Perineum, the Anatomical Technique, Howard Hill.

Papers limited to 15 minutes; discussion 5 minutes.

General discussion limited to 5 minutes.

1. Dr. Irving Potter's Version.

2. Indications for Caesarian Section.

3. Use and Abuse of Pituitrin.

4. Scopolamin in the Light of Experience.

5. Treatment of Post Partum Hemorrhage.

6. The Third Stage of Labor.

It is hoped that the success of the plan may be sufficient to stimulate similar intensive work in the various district meetings throughout the southwest.

Labette County Medical Society

The society met in the parlor of the First National Bank, Oswego, June 29th, with President E. E. Liggett presiding. Most of the members and several visitors present.

This was the fourth of our series of lectures given by Kansas University men. These lectures are arousing considerable interest among our members, and also from those adjoining societies who have had the "pep" to start at the beginning and follow us through thus far.

Though the subject "Endocrinology" is only in its infancy and admittedly one about which much theorizing has been, and still is being done, making it difficult for the general practitioner to obtain much beneficial information from the voluminous writings on the subject, Dr. Milne, who presented the subject to us, had it so well classified that we were able to obtain much of practical importance.

He talked from an outline unique and original, but one from which he was able to sift for us the grain from the chaff, the usable from the theoretical. So each one present felt that he had gained much which could be used, and, we believe, the community in general has been, through this lecture, greatly benefited. We were glad to have Dr. Milne with us and we hope he may some time oblige us with another visit.

Our next lecture, the fifth of the series, we hope to have presented by M. T. Sudler, dean of the University. We expect each member and many visitors to be present. We shall have something good.

P. S. TOWNSEND, Secretary.

Venereal Disease Conference

The conference on the diagnosis and treatment of gonorrhea and syphilis, conducted in the Newark City Dispensary and Hospital under the auspices of the Venereal Disease Bureaus of the State and Newark City Health Departments, were attended by approximately 150 physicians from New Jersey, New York and Pennsylvania.

THE WEDNESDAY MEETING—SYPHILIS

The first session began with an exhibition of seventy stereopticon slides illustrating the cutaneous manifestations of syphilis, some of which are but rarely seen today because of the improvement in the methods of diagnosis and treatment. Dr. Howard Fox, clinical Professor of Dermatology at the New York Polyclinic Medical School and chairman of Section of Dermatology of the New York Academy of Medicine, discussed each of the pictures as shown.

Dr. Mihran B. Parounagian, Director of the Department of Syphilology at the Bellevue Hospital and Medical College, described the routine treatment of syphilis as conducted in the Bellevue Clinic and discussed the administration of the drugs used in the treatment of syphilis.

In the afternoon, the Newark Dispensary Clinic staff demonstrated the administration of silver and the old arsphenamine, and the injection of both the soluble and insoluble mercury salts. At this demonstration the large

attendance at the dispensary syphilis clinic provided ample material for the injections and the physicians were shown the method by which this large number of patients could be handled expeditiously during the limited time of the clinic.

After a demonstration of the differential diagnosis of the *Treponema pallida* with living cultures of the organisms causing syphilis, and Vincent's angina, the physicians inspected an exhibit of the Wassermann reaction and the colloidal gold test.

The remainder of the afternoon session was devoted to a special discussion and demonstration of the technique of arsphenamine administration by Dr. Parounagian.

THE THURSDAY MEETING—GONORRHEA

The second day of the conference opened with an operative clinic by members of the Newark Clinic staff at the Newark City Hospital. The remainder of the morning was devoted to practical demonstrations of the treatment of gonorrhea and its complications as conducted in the Newark City Dispensary Clinic. This clinic has a very large attendance. The clinic management allows the maximum of attention to the individual patient by dividing the cases according to the stage of the disease, each group being treated by one of four physicians attending the clinic.

In the afternoon Dr. E. L. Keyes, Jr., Professor of Urology at the Cornell University Medical College, confined his remarks to the fundamentals of the "Pathology and Treatment of Chronic Gonorrheal Urethritis." Dr. Keyes pointed out the importance of obtaining a positive diagnosis in chronic gonorrheal urethritis and urged the use of the complement test as corroborative evidence. He pointed out the inefficiency of surface irrigation when the infection is located below the surface of the urethra, and urged the need for genital mechanical treatment of the infected areas.

The last paper, on "Some Complications and Sequelae of Gonorrhea and Their Treatment," was given by Dr. Colin Luke Begg, Associate Professor of Urology at the New York Post Graduate Medical College and

Hospital and President of the New York Urological Association. Dr. Begg discussed the symptoms of acute gonorrhea; urged that the patient be placed in bed if possible; that the diet be regulated; that hot baths be employed twice daily; that alkaline diuretics be employed; and that atropin or belladonna be used to control pain, when necessary. He cautioned against the use of instrumentation in acute gonorrhea except when in the hands of a physician particularly experienced in their use.

The symptoms of posterior urethritis were discussed and the methods of diagnosis. The rectal examination of the prostate and seminal vesicles was described. Dr. Begg discussed the use of gonorrheal vaccines and concluded with a discussion of the treatment of epididymitis.

The conference closed with a "bedside" clinic at the Newark City Hospital where Dr. C. R. O'Crowley, chief of the Newark Clinic, discussed the treatment of gonorrhea cases and demonstrated the use of the cystoscope.

The conference on the diagnosis and treatment of gonorrhea and syphilis has demonstrated the advisability of co-operative effort upon the part of municipal and state health departments in rendering a post-graduate service to the medical profession. The health authorities are stimulated by such a conference to further work. Physicians are rendered a distinct service which they appreciate, and the public is ultimately benefited by better diagnosis and better treatment, through more enthusiastic service by the entire medical profession.

**Mid-Western Association of Anaesthetists
Organization Meeting, Kansas City,
Mo., October 24-28, 1921**

The Anaesthetists of the Middle West will hold an organization meeting in Kansas City, Mo., October 24-28, in conjunction with the meetings of the Medical Veterans of the World War, Missouri Valley Medical Association, Medical Society of the Southwest and the National Anaesthesia Research Society.

A splendid scientific program of pertinent papers is in the making for this occasion, and

the clinics to be held will offer every opportunity to see and demonstrate the latest methods of anaesthesia.

Membership in the Mid-Western Association of Anesthetists is open to all licensed and qualified members of the medical and dental professions as well as to research workers holding doctorates of similar standing, who are interested in advancing the science and practice of anaesthesia.

A special session will be devoted to anaesthesia for oral surgery and dentistry.

Headquarters will be at the Muelbach and the scientific sessions and annual dinner will also be held there. As a large attendance is expected at this joint meeting, make your hotel reservations now.

If you wish to present a paper during the meeting, kindly notify the organization secretary at once, giving the title and brief abstract of the same.

Fill in the details of the enclosed membership application and return it with your check or money order for the annual dues (\$5) so that your charter membership card may be sent you. Also send in the names and addresses of as many prospects for membership as you may know of.

The visiting ladies will be delightfully entertained, so let the secretary know how many will be in your party.

The following are the officers of the Organization Meeting: President, R. M. Waters, M. D., Sioux City, Iowa; vice-presidents, David E. Hoag, M. D., Pueblo, Colo., and Nettie Klein, M. D., Texarcana, Texas; secretary-treasurer, Morris H. Clark, M. D., Kansas City, Mo.; and members executive committee, B. H. Harms, D. D. S., Omaha, J. E. Craig, D. D. S., Kansas City, A. E. Guedel, M. D., Indianapolis, R. S. Adams, M. D., San Antonio, R. L. Charles, M. D., Denver, and E. M. Moorehouse, M. D., Yankton, S. D.

The organization officers and executive committee will do everything they can to make this meeting interesting, instructive and enjoyable and your cordial co-operation and support are solicited in launching the Mid-Western Association of Anaesthetists on a

successful career for the benefit of all concerned.

For further information address

MORRIS H. CLARK, M. D.,
Secretary-Treasurer, Rialto Bldg., Kansas
City, Mo.

—R—

Lethargic Encephalitis With Severe Recurrent Narcolepsy

NEW YORK NEUROLOGICAL SOCIETY

Dr. Walter Kraus presented a boy who had lethargic or narcoleptic attacks during the day, with insomnia at night. The patient had an influenza-like attack in February, 1920, and after that he was continuously somnolent for six weeks. He could be aroused, and then recognized his family. This somnolent period was followed by inability to sleep at night, and drowsiness during the day. He would fall asleep while standing up. He was admitted to Bellevue Hospital.

Examination revealed an undersized boy of 12. He had a peculiar stooping, parkinsonian attitude while standing. When a narcoleptic attack began while the patient was standing up, the head would fall forward, then the torso would flex on the hips and the knees bend, and the patient would fall to the ground if not caught. There was double paresis of the facial nerves of central type, the arms were in the parkinsonian position, the right more so than the left. The fingers were in the pill-rolling position. There was no change in sensation. The tongue was thick, the teeth spaced; there was a general cretinoid appearance. Since his visit to the hospital, dribbling at the mouth has been noticed. The rest of the examination was quite negative.

During the presentation the boy began to bend forward, his head drooped to his chest. When Dr. Kraus called attention to his condition he noticed that he was being spoken of, smiled, and straightened up again. His tongue protruded slightly and remained so for some minutes. Photographs taken during the narcoleptic state show him with the body almost doubled.

Combined with day sleeping there is almost total sleeplessness at night. This is the inver-

sion of the sleep mechanism found in many cases of epidemic encephalitis.

The Wassermann reaction was negative of both blood and spinal fluid. The fluid contained 4 cells; the globulin was negative. An estimation of the total sugar in the spinal fluid showed 0.95 per cent (normal 0.40 to 0.60 per cent). The colloidal gold reaction was 0.0011112110. The urine was normal. Red blood cells numbered 4,900,000; while blood cells, 8,800; there was 90 per cent of hemoglobin and 50 per cent of polymorphonuclears.

At the time of presentation (at night) Dr. Kraus considered it striking that the attacks were not occurring with the same intensity as during the day. They had been frequent in the ward and had been observed that afternoon.

The case is typical of the group showing involvement of the basal ganglions.

(Archives of Neurology and Psychiatry, March, 1921, page 336.)

—R—

Relation of Liver and Pancreas to Infection of Gallbladder

A review of Mayo Clinic studies causes Edward Starr Judd, Rochester, Minn. (Journal A. M. A., July 16, 1921), to believe with Graham that cholecystitis rarely exists without hepatitis. Often the inflammation in the tissues of the liver is so slight that it is not noticed unless special effort is made to detect it. The close association of the liver and the gallbladder by the lymphatics makes extension of the infection from one to the other very easy. Pancreatitis occurs frequently with cholecystitis, and as a result a definite gross change occurs in the pancreas. While it is possible that the inflammation in the pancreas may be due to the influx of bile into the pancreatic duct, Manns recent experiments show that this does not occur except under unusual conditions. It is possible for infection to invade the pancreas by way of the lymphatics from the gallbladder, and in many cases this probably explains the source of the infection. It is apparently entirely relieved by the treatment for the cholecystitis. Judd was unable to find in the clinical histories of patients known to have hepatitis any symptoms that were especially suggestive of the inflammation.

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Gonorrhea of the Lower Genito-Urinary Tract in Women, with Special Reference to Its Treatment

M. O. NYBERG, M.D., WICHITA

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The subject of gonorrhea in women has been a phase of medicine long neglected by the general practitioner, and perhaps, not without reason since this disease is not so common among the class of patients usually seen by a general practitioner; and when confronted with such a case he does not give it the proper care and consideration. Too often the patient suffering with gonorrhea is allowed to treat herself for the most part, being instructed by her physician that an antiseptic douche of some sort is all that is necessary, with an occasional office treatment, which may or may not be properly given. Usually patients suffering with this disease belong to a class of undesirables and the busy doctor is not inclined to devote much of his valuable time to their treatment, hence few, if any cures result.

That gonorrhea in women is a serious disease is well known. The complications attending many cases, the numerous abdominal operations performed, the large number of tubes and ovaries removed and the host of sterile women produced by this disease demonstrates the ineffectiveness in the past of treatment of gonorrhea of the lower female genito-urinary tract.

I shall review briefly the anatomy of the lower genito-urinary tract. The external genitals consist of the mons veneris, labia majora, labia minora, clitoris, vestibule, vulvo-vaginal (Bartholin's) glands, and hymen. The urethra and Skene's glands may also be mentioned here. The internal genital organs

consist of the vagina, the uterus, fallopian tubes and ovaries.

The mons veneris is of no importance in gonorrhea in the female, except that it grows hair, usually, and that it should be clean shaven.

The labia majora are two cutaneous folds which are continuations of the mons veneris, and passing backward, joining the perineum. The external surface of the labia majora presents all the characteristics of the skin and is of no particular significance when dealing with gonorrheal infection, except that they should be clean shaven. The internal surface of the labia majora have lost some of their cutaneous characteristics, viz: the hair—and the color of the skin is pinkish.

The labia minora, or nymphae, are two delicate muco-cutaneous folds lying between the labia majora, one on each side of the vaginal opening. Frequently the nymphae are enlarged. The labia minora begin just below the anterior superior junction of the labia majora and pass above and below the clitoris, the folds above form the prepuce of the clitoris. The labium minus on each side then descends along the inner side of the labia majora and terminates about the junction of the middle and lower third of the labium majus. The posterior extremities of the labia minora are united by a fold which extends between them just behind the vulvar orifice and this is known as the posterior fourchette. There is some dispute as to whether the inner surfaces of the labia minora are integument or mucous membrane. Microscopically there are characteristics of the skin, with the exception of hair, the sebaceous glands being present and papillae are also present, although there is a thinning of epithelium.

The labia minora have many folds giving it

an uneven surface, more noticeable on section and microscopical examination.

The clitoris is the analogue of the penis in the male, but fortunately in the female it is not deserving of any consideration when treating gonorrhea of the genital tract.

The vestibule is an elliptical area situated between the labia minora. Into this vestibule four canals open. (It is well to bear in mind the location of these canals more particularly the ducts of Bartholin's glands). The canals are the vagina, the urethra, and the ducts of the vulvo vaginal glands, one on either side. The urethra is just above the vaginal orifice. Just within the meatus urinarius are located, one on either side, two ducts known as Skene's glands and a common seat of gonorrheal infection. The vulvo vaginal glands, one on either side, are located behind the anterior layer of the triangular ligament. They are normally the size of a small lima bean, and are compound racemose glands, which, please bear in mind, are not amenable to medical treatment when once they become infected with gonorrhea. It is an easy matter to locate the opening of the ducts in the vestibule when the ducts are inflamed.

The hymen is a circular or crescentic fold of mucosa surrounding the vaginal orifice, and is of little consequence in gonorrheal infection except in children or virgins, when it complicates matters somewhat.

The vagina is a musculo-membranous canal, extending from the vulva to the cervix uteri. Its size and shape are variable. The length of the anterior wall of the vagina is usually three or four inches, the posterior wall being from five to six inches in length. It is constricted at the lower end and partially closed by the hymen. The upper portion is dilated and terminates about the neck of the uterus. The anterior and posterior walls of the vagina lie in contact, the wide diameter being transverse, with the exception of the vulvo-vaginal orifice which has a wider antero-posterior diameter. These facts will be remembered when introducing a speculum and will be mentioned later. The mucosa of the vagina is thrown into transverse folds known as "rugae." There are no true mucous glands in the vaginal mucosa. There may be

a few rudimentary glands but they are of no particular significance. Histologically the vagina is not a true mucous membrane but has many characteristics of integument. The upper portion of the vagina is known as the vaginal vault. That portion behind the cervix uteri is known as the posterior fornix. That portion in front of the cervix is known as the anterior fornix and on either side of the cervix the lateral fornices, right and left.

The uterus is situated about the center of the pelvis, between the bladder and rectum. It projects upward into the peritoneal cavity and the convex surface is covered by peritoneum, except the lower portion. The upper end of the uterus is directed forward, the lower end, the cervix, being directed backward and downward and projecting into the upper end of the vagina. The axis of the uterus and that of the vagina making an angle of about 90 degrees. The uterus, as you know, is the shape of an inverted pear. The lower constricted portion is called the cervix, or neck of the uterus, and to this the vagina is attached. The corpus uteri lies above the cervix and the fallopian tubes arise from this portion. That portion of the uterus above the tubes is known as the fundus.

The uterus has a small central cavity, lined with mucous membrane and which communicates with the vagina, and through the fallopian tubes with the peritoneal cavity. This is the only continuous opening from the outside world into the peritoneal cavity, hence the more frequent peritonitis in women than in men. The size of the uterus varies somewhat, the average being about three inches long, one inch thick and two inches wide. The cervix occupies about one-third the size of the uterus. For the most part, the uterus is a hollow muscle lined with mucous membrane and it is the lining of the uterus with which we are chiefly concerned when treating gonorrhea, below the tubes. The mucous layer of the uterus lies directly on the muscular stratum the usual submucous layer of loose connective tissue being absent. This mucous membrane is called the endometrium. The lining of the cervix is known as the cervical mucosa. The endometrium is about one twenty-fifth inch thick and contains many mucous glands

of a simple tubular type. The free surface of the endometrium is covered with a layer of ciliated columnar epithelial cells.

The structure of the cervix uteri differs from that of the body of the uterus in several particulars viz:

(1) The greater part of the cervix has no peritoneal covering.

(2) The muscular layer of the cervix has more connective tissue, therefore more firm.

(3) There are no venous sinuses in the cervix, the blood vessels have thicker walls.

(4) The mucous membrane lining the cervix is thrown into numerous prominent folds.

(5) The glands of the cervix approach the racemose type. They consist of branching ducts with dilated ends. The glands are lined with columnar epithelial cells. The glands secrete a clear, viscid and tenacious mucous, which fills the cervical canal and serves to close the cervix, thereby preventing invasion of bacteria into the uterine cavity.

I will not discuss gonorrhea of the fallopian tubes, as I consider that all cases of gonorrheal tubes require surgical removal, and each surgeon may apply his own technique.

One of the most difficult tasks one can undertake is the establishment of an accurate diagnosis of gonorrhea in the female, particularly in the chronic stage. Points of emphasis:

- (1) The clinical evidence of the disease.
- (2) The microscopical examination.
- (3) The complement fixation test.
- (4) The cultural method of demonstrating the gonococci.

The clinical picture of acute gonorrhea is rather typical and of much use in establishing a diagnosis. There is acute inflammation of the vulva and usually of the vagina, and the urethral mucosa near the meatus. The cardinal signs of inflammation, pain, heat, redness and swelling are present. At first there may be a dryness, later a thin secretion, which in a few days becomes a free yellowish discharge causing irritation to adjacent parts. The superficial layers of epithelium are destroyed and the gonococcus penetrates the underlying tissues. The process may affect only the vulva or upper vagina or the urethra or the glands of Bartholin or the cervix may

be the sole site of infection. The most common site is the urethra and the cervix uteri. One usually finds, on inspection, a foul discharge covering the labia, the discharge being of a yellowish color, the urethra is reddened and swollen and tender to touch. With careful stripping of the urethra, pus will exude from the meatus. Pressure over Bartholin glands may produce an outflow of pus. Of course not all such pictures are due to gonorrhea. Therefore a more thorough investigation is made. We next make smears which are examined for gonococci.

The taking of smears is an art and should be perfected, if one expects the best results from his efforts. It is essential that the slides be absolutely clean and polished, the specimen of pus or secretion should be collected in a capillary pipette and placed on the slide and evenly spread in a thin layer over the slide with a straight platinum wire, or with the capillary tube itself; care being exercised to avoid undue breaking up of the pus cells, one may use a tightly wound cotton swab which has been dipped in a 1-1000 solution bichloride of mercury and transfer the specimen to the slide, taking care to roll the swab on the slide rather than rub the specimen over the slide. The bichloride has a tendency to fix the cells. Above all things make the smears thin, for the reason that there exists, always in the genito-urinary tract of the female, multitudes of various sorts of bacteria that will render a correct diagnosis impossible if the smear is too thick. Let us suppose that the smear has been properly made and fixed, after drying by heat in the usual manner the slide is ready for staining.

I mention methylene blue only to condemn its use in staining smears from the female genito urinary tract. If you use it here, you are likely to find what you are looking for, and err in your diagnosis. There is only one staining method to use in searching for gonococci and that is Gram's method, and even with its use there is a chance for error, as I shall endeavor to show. Presuming that the slide has been stained, fixed, decolorized and counter stained by the Gram method, you place the slide under the microscope and begin. Passing before your field of vision are

multitudes of organisms piled in a conglomerated mass, and mingled everywhere with pus cells, many of which are laden with microorganisms of various sorts and kinds. Presently you stop the stage and behold a beautifully stained pus cell, the nucleus standing out in bold relief, a beautiful Bismark brown—and here and there thickly dotting the body of the cell, which you know is spherical, you see rounded biscuit shaped pairs of cocci and single bacteria stained brown. Ah! you say, here we have a typical text book picture of our notorious gonococcus. Feverishly you turn the fine adjustment up and down, and in every plane appears the organisms; the longer you gaze the less typical of gonococci the picture becomes, and finally a question comes to your mind, are those gonococci or are they micrococci catarrhalis, or are they transitional colon bacilli, or perhaps some staphylococci which have changed their notion, for some reason or other, and become gram negative. They are capable of doing it, you know, and even become intracellular. Finally you conclude to look further, you encounter other cells very similar to those already examined and still others quite dissimilar. Finally there appears in the field a cell fairly loaded with diplococci which are gram negative, they appear in the same plane of the spherical cell, and have the characteristics of the gonococcus in every particular and at last you cry, Eureka!

One cannot be too reserved in making statements positive in character concerning the diagnosis of gonorrhea in the female, if he depends solely upon the microscopical findings. I have known some very excellent bacteriologists who never fail to find the gonococcus on every slide submitted to be examined for that particular organism. Therefore we must not depend upon the microscope alone for a definite diagnosis of gonorrhea, at least not yet.

The complement fixation test is of some value in establishing a diagnosis of gonorrhea. There remains one other test of certain value in making the diagnosis of gonorrhea complete and that is by cultural methods. Nature has prepared a most excellent culture tube in which the gonococcus will flourish in profu-

sion viz: the male urethra. Unfortunately this culture tube cannot be used in every case one may wish to culture, therefore artificial culture media is prepared and some of them are of practical value. Thalmann's media is quite a success and more recently the Urological Institute of Johns Hopkin's University has perfected a media upon which the gonococcus grows very nicely. It is necessary that cultures be made directly from the patient to the media, and that the media be at body temperature and immediately transferred to the incubator, if one expects success. Remember then, there are found things essential in establishing a positive diagnosis of gonorrhea in the female viz:

1. The clinical evidence.
2. Typical gram negative intracellular diplococci, which are in the same plane of the spherical cell.
3. The complement fixation test which is of as much value as the Wassermann test for syphilis.
4. The careful cultivation of gonococcus from the patient.

TREATMENT

The treatment of gonorrhea in the female has been for the most part a matter of considerable experimentation, and many different conclusions have been drawn. Therefore I have made a few experiments of my own, and I have fairly well drawn conclusions, I submit the following method of treatment, which I have been using with considerable success for the past year and a half and which so far as I know has not been employed before.

The methods heretofore in common use in the treatment of gonorrhea in women seems to me to be entirely inadequate for the needs of the day.

The mop, broom and scrub brush have been improved upon and today we have the vacuum cleaner and dustless mop to supplant in part at least the older and less efficient implements of household cleanliness. Why not apply the same method of cleansing to the filthy mucocutaneous surfaces of the vulva and vaginal and uterine mucous membranë in gonorrheal infection or any inflammation accompanied by a mucopurulent discharge.

The methods I shall describe are of more than passing interest. When one considers the structure of the female genitals one of the striking features is the many folds (rugae) into which the mucous membrane is thrown. In as much as these rugae lie in a transverse position natural drainage is not facilitated but rather retarded, nor is it possible with ordinary douching or irrigation, or even swabbing, to cleanse thoroughly the spaces between the transverse rugae. Mopping or swabbing is resorted to most frequently to remove the muco-pus clinging to the mucous membrane. Often the muco-pus is so tenacious that vigorous scrubbing is required to dislodge it and in doing this one merely excoriates the superficial epithelium and rubs the infectious organisms more deeply into the tissues.

Should the infection extend farther than the vaginal vault into the uterus the treatment is still more difficult, here again the old method of application of antiseptics and cleansing are improperly applied.

The scheme of the treatment to be described has for its merit:

1. Thorough cleanliness.
2. Ease of application.
3. The fact that the lymph drainage is facilitated by suction which causes hyperemia and increases white blood corpuscles to the diseased parts.
4. Application of dehydrating antiseptics and the application of penetrating nonirritating and yet efficient antiseptics, after the mucous membrane has been thoroughly cleansed and dried thereby causing outflow of lymph and the consequent destruction of bacteria. The treatment is utilized as follows: place the patient in a usual lithotomy position: with a safety razor, or an ordinary straight edged razor, shave clean the parts below the pubes, this is an important step, always the hair surrounding the vulva is matted together and laden with all sorts of organisms and when once this is removed, the danger of contaminating hands and instruments is lessened considerably.

The next step is the cleansing of the muco cutaneous surfaces of the external genitals. One may mop the surfaces clean with swabs,

but in so doing the superficial cells are excoriated and infectious organisms are rubbed more deeply into the tissues. To obviate this I use irrigation with hot one per cent lysol solution and a vacuum suction instrument over the muco cutaneous surface. The alternate irrigation and suction is applied until the area is clean. Suction is applied thoroughly over Bartholin's glands, the urethra and Skene's glands. Gentle massage over the glands during the application of the suction facilitates the removal of secretions contained in the ducts. The suction prevents the bacteria from becoming imbedded in the tissues, causes hyperemia and above all things cleanses the irregular surfaces. After the cleansing of the external genitals, I apply a blast of hot air to the muco cutaneous surface until the tissues are quite dry. I then apply a five per cent solution of mercurio chrome "220", this is done with an ordinary application. The urethra is irrigated with a two per cent solution of mercurio chrome "220", using a glass syringe, with a rubber ball compressor. The urethra is irrigated through and through to the bladder and a portion of the solution is left in the bladder to be expelled when the patient next urinates. One need not fear a cystitis by doing this. A gonorrheal urethritis clears up remarkably well under this treatment.

Should Bartholin's glands become badly infected or form an abscess they are removed in toto. Skene's ducts are also split wide open and cauterized with an electrically heated needle or silver nitrate stick. They heal promptly and infection from that source is at an end.

Passing into the vagina with a Grave's bivalve speculum, the vagina is put on tension and the vaginal vault flooded with hot (110 degree F.) lysol solution. The suction instrument is applied to the surface of the vagina and drawn gently back and forth until the entire vaginal vault has been covered. Repeated irrigations and use of the suction instrument thoroughly cleanses the vagina and the external os. The current of hot air is used to dry the muco cutaneous surface of the vagina prior to the application of the five per cent solution of mercurio chrome "220".

When the vaginal speculum is introduced into the vagina and the cervix uteri is brought into view, one usually sees a thick tenacious muco purulent discharge pouring out of the external os; repeated attempts to mop away the secretion usually fails, a pair of scissors is capable of removing the secretion flush with the external os. A specially designed suction instrument very quickly and easily removes all the secretions in the cervical canal and thoroughly cleanses the mucous membrane, and empties the mucous glands of their contents, thereby removing infectious material and freeing the cervix of detritus and allowing the application of medicaments. After thorough cleansing of the cervix and application of the heated air for a few minutes, the mercurio chrome "220", in five per cent solution, is applied. Should there be a tendency of the cervix to bleed due to erosion a 25 per cent solution of silver nitrate is used and with excellent results.

I consider the use of suction an ideal method of cleansing the mucous and mucocutaneous surfaces. The application of dry heat is one of the best germicides applicable to the gonococcus—mercurio chrome "220", is an exceptionally good antiseptic in treating gonorrhea in women, but I find considerable use for a four per cent and a 25 per cent solution of silver nitrate.

As a routine I insert into the vaginal vault a small cotton tampon saturated with a 2 per cent solution of mercurio chrome "220". Lambs wool tampons are not applicable in the treatment of gonorrhea of the vagina, as the wool excoriates the superficial cells and irritates the tissues.

The extreme gentleness with which one applies treatment to the inflamed parts is to be commended. If one finds his patient grows worse under treatment, the best policy is to stop all treatment and give the patient a chance to recover. Acute cases should be treated daily. Chronic cases at least three times a week.

One frequently finds use for nitrous oxide anesthesia in treating the abscesses of Bartholin's gland, but cocaine or novocaine is applicable in anesthetizing the area about Skene's glands. Some acute cases of gonorrheal vagi-

nit is so sore and tender that a light gas anesthetic is necessary to introduce a speculum.

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Carcinoma of the Uterus

R. C. LOWMAN, M.D., KANSAS CITY

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Occasionally it is wise to read a paper even about such a well described and much talked of subject as Cancer of the Uterus; the reason being that we are all prone to become careless and an occasional reminder stirs us to renewed attention and activity. It seems to me that in addition to always being on the alert to recognize this disease we should each of us conduct a personal campaign of educating our patients and friends regarding the early symptoms and signs. These people will in turn tell others and our combined efforts should aid materially in bringing more operable cases to the surgeon's care and thus reduce the enormous mortality of this frightful affliction.

I shall present a short synopsis of the symptoms of uterine cancer leaving to the discussion to elaborate and supply my deficiencies. I shall not attempt to burden you with statistics for every one knows they are bad enough.

The epithelium covering the vaginal part of the cervix consists of layers of squamous cells like that of the skin but without hair follicles, sweat or sebaceous glands. Just above the external os these squamous cells merge into mucous cells which cover the surface of the endocervix and the glands which branch from it.

When the cervix has been lacerated the endocervix becomes everted, redder and more roughened than the vaginal mucous membrane. This is the condition commonly called erosion and corresponds to the ulceration of the older writers.

Cancer of the cervix may begin in the squamous epithelium covering the vaginal portion, in the everted surface, or in the mucous cells higher up in the endocervix, and in the beginning the ones starting in the vaginal portion are squamous cell carcinoma or epi-

thelioma, while those springing from the everted portion or higher up are adenoid in structure and are called adeno carcinoma. Usually, however, late in the disease the adenoid structure is lost and most of them are diagnosed as squamous celled epitheliomata.

Cancer originating in the cervical canal has a tendency at first to grow into the cervix and invade the parametrium and vaginal lymph glands, and may not soon show at the external os and in this way makes an early diagnosis more difficult than in those beginning in the torn everted cervix or vaginal portion of the cervix, which are at once apparent on exposure of the cervix.

Those carcinomata starting on the vaginal aspect grow downward and outward and cause the characteristic cauliflower masses. They invade the vaginal wall sooner but have a lesser and later tendency to invade the parametrium and lymph glands.

As regards the etiology, the outstanding and important fact is that these cancers almost invariably begin in a torn eroded cervix which is the seat of long continued irritation.

The symptoms of cervical cancer are leucorrhea, hemorrhage and pain. The discharge at first is only an exaggeration, possibly, of a previously existing leucorrhea, later becoming more profuse and finally very abundant, watery and characteristically foul, meaning usually an incurable form of the disease. Bleeding and hemorrhage are perhaps the most important of the early symptoms. We may have an increase in amount and duration of menstruation, bleeding easily brought on by movements of the body, coitus, and digital examination. The cauliflower type of cancer will, of course, have these symptoms earlier and more consistently than the ones arising in the endocervix where trauma plays a less important role.

Pain as a symptom is ordinarily a late one and generally means an extension to the parametrium and lymph glands and denotes a late inoperable case. In our conversation with patients and others we should emphasize the fact that pain is not an early symptom of cancer. We meet many patients who give as an excuse for not seeing the physician sooner that they

had no pain and therefore thought their other symptoms did not signify anything serious or important.

The diagnosis of cervical cancer is easy as a rule in the cases as they come to us. The cauliflower masses are characteristic but are sometimes confused with sloughing myomatous polypi as I have seen on two or three occasions. However, a little further search will reveal the pedicle and clear the diagnosis.

When we find the ulcerative form diagnosis may be a little more difficult. Extremely friable tissues with bleeding easily provoked are very suspicious symptoms and occur in hardly any other disease. Tubercular and syphilitic ulceration is very uncommon and the microscope will aid greatly. Ulceration produced by ill fitting pessaries is sometimes confused but lacks the friability and bleeding and clears up rapidly with cleanliness and removal of the exciting cause.

Ulceration in an extreme and long continued procidentia may sometimes simulate cancer but these ulcers have a flat, dry appearance and do not bleed easily, though in case of doubt one should resort to the microscope immediately. We should remember also that cancer occurring in procidentia is extremely rare.

Erosions of the cervix sometimes resemble cancer, especially when associated with cervicitis. The presence of Nabothian cysts is by some said to rule out cancer but in case of doubt a microscopical examination by a competent man should be made.

Infiltrating cancers arising from the endocervix are often very confusing, especially when no ulceration is to be seen and there is very little or no enlargement of the cervix. Watery discharge and bleeding are the most common signals of cancer in this location. Senile cervicitis, senile vaginitis and pyometra may sometimes cause symptoms resembling cancer. In pyometra the discharge is thick creamy pus and not watery, while in senile vaginitis examination in Sims position will show the bleeding to come from eroded areas in the vagina and not from the uterus. If the bleeding is from the uterus an intrauterine examination is imperative, paying especial attention to friable areas and remov-

ing a specimen for microscopical examination with a sharp curette.

The best way to remove a specimen is to have the patient in Sims position and use the Sims speculum. The cervix may be drawn down and steadied by a tenaculum, a small bit of tissue removed by sharp long vaginal scissors or sharp curette, placed in a 5 per cent formalin solution and sent to the pathologist for frozen section and examination. Any bleeding that may be caused may be checked by tampon.

The question as to recommendation of operation or palliative treatment is a difficult one to decide at times. If the carcinomatous process has not encroached upon the vaginal wall, the cervix is movable and no induration of the broad ligaments present, then one may conscientiously advise removal. When the opposite of these conditions is present the case is generally regarded as unfit for radical operation. However, there are a few borderline cases where it is impossible to state without opening the abdomen whether there is hope of getting a good result from operative interference.

In a few cases moderate induration of the broad ligaments may be due to inflammatory reaction and in any instance where one is in doubt we should remember that we are dealing with a fatal disease and are justified in taking more chances than in many other conditions.

TREATMENT

The recent improvements and discoveries in the use of radium in cancer of the cervix has created much argument as to the best line of treatment, the most enthusiastic supporters of radium saying that if this agent is the most efficient means at our disposal for advanced cases as it is undoubtedly is, why is it not the best for early cases, and they can show very good results to substantiate their claims.

The majority of surgeons, however, especially in cities or towns, where radium is not available, are treating suitable cases of uterine cancer by hysterectomy, either vaginal or abdominal. Of the two, the abdominal method after the plan of Wertheim, has given the best results if performed in a proper way.

In conclusion, let me say that the object of

this paper is to once again attract our attention to this subject in order that we, ourselves, will be more acute in our observation and examinations and that we will lose no proper opportunity to impress the importance of the early seemingly insignificant symptoms upon the consciousness of our patients and acquaintances.

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A Very Early Case of Gonorrheal Arthritis

F. A. TRUMP, M.D., OTTAWA

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Gonorrheal Arthritis in infancy is infrequent as compared to the number of cases of gonococcus infection encountered, especially that of vulgo-vaginitis. It is more often found complicating cord stump infections and purulent ophthalmos and at times when no portal of entry can be found. Gittings and Mitchell have found gonorrheal arthritis but three times in 188 complications of gonococcus vulvo-vaginitis reported by different observers. Other well known pediatricians report that they have never seen a case.

Its development in infants following gonococcal conjunctivitis was pointed out by C. Lucas February 22, 1885, in the *British Medical Journal* and caused a great deal of discussion. His patient was eighteen days old when the joint complication was noticed. Holt states that during the last few years 26 cases of acute gonorrheal arthritis have been observed in the New York Babies Hospital and only two occurring during the first month could be classed as infection of the newborn. Thus we find that gonorrheal arthritis is a rare disease in infants under one month of age.

Although the Crede method of silver nitrate installation into the conjunctival sac is practically a certain preventative of gonococcal infection, it is not absolutely so. The time element has to always be taken into consideration. The silver solution should always be dropped into the eyes immediately after birth. Every minute elapsing after the culture is planted makes it more difficult to reach. In the case I am about to report there was probably thirty minutes lost between the

birth of the child and the treatment of the eyes.

Baby K. was born February 18, 1919, spontaneous labor. The mother who intended to be delivered in the Hospital was brought in immediately and the infant's eyes treated at once by the instillation of a 2 per cent solution of silver nitrate followed by normal saline solution. Because the case was seen comparatively late, the prophylactic treatment was repeated in a few minutes. The following morning, seven hours after the birth of the child, the nurse reported profuse yellow discharge from both eyes and vulva. Smears showed many Gram negative diplococci. Treatment of the eyes was turned over to an eye man immediately, but quite a large ulcer developed on the left cornea.

On the 14th day after the birth the mother noticed some swelling in the baby's left wrist. The next day there was more swelling and my attention was called to it. The joint was moderately swollen, red and hot. The infant would cry out if the joint was moved or touched. In five days following the right knee became involved. The swelling was quite marked, the joint became twice the size of the normal one by actual measurement and exquisitely tender. The leg was flexed markedly and only by persistent effort was this contracture overcome.

The next and last joint involved was the left ankle three days later. This apparently was a much milder process. There was no cord stump infection.

The corneal ulcer was healed at the end of the sixth week. After this focus of infection was healed the joint involvement disappeared very rapidly (perhaps a week). The arthritis developed in thirteen days after the eye infection started and disappeared in one week after the focus was removed. There was no cardiac involvement.

—R—

The Doctor and So-Called Cults

C. C. GODDARD, M.D., Leavenworth, Kan.

There are so many different phases one could take up that it is somewhat confusing to classify the Doctor of Medicine, so that the portrayal would be satisfactory. One is apt

to have a picture in the mind of what constitutes the typical doctor.

The picture depends somewhat on what period one selects. The doctor of sixty years ago would be different, in the minds of many, as compared with the doctor of today. We might then look at it from the different epochs and so get a better idea and at the same time realize the great strides medicine has made in three generations. Many of the heart-breaking problems of forty and sixty years ago have been solved and the pathway of the honest worker has been made much more pleasant and the horrors of yesterday are mere myths of today.

I hope the bright, up-to-date practitioner of today may be somewhat tolerant toward the old men of yesterday and not smile too broadly at some of the attributes and peculiarities of their progenitors in the profession; but try to imagine themselves in the old man's shoes and then ask themselves, "Could I have done any better, or as well with the same limitations? Could I have done any better in a gunshot wound of the abdomen than was then done? Would I have faced a term in prison for daring to open the abdominal cavity?" remembering that as yet Lister had not arrived—sterilization had not yet been conceived.

Every new generation of medical embryos looks with more or less intolerance on the preceding and criticizes their lack of knowledge in causation, technique and what not; just as the graduate of sixty years ago thought about the generations preceding themselves: Let us try and remember that,

"There is so much bad in the best of us;
And so much good in the worst of us,
That it hardly behooves any of us
To talk about the rest of us."

The regular doctor is an individual without fads or fancies; minus superstition to a great degree. He uses all remedies, without regard to size or derivation, that have been proven of benefit; does not turn up his nose at hydrotherapy, mush or mud or any other vehicle if found to fit the case; does not even frown, very much, at hypnotism—though he may spit a little in disgust.

He is professional, but not bigoted. He has

a proper regard for his fellow man; does unto others as he would have them do unto him; tries to live an upright life without prejudice; loves his competitor, his neighbor and mankind in general, forgives the erring and tries to help them back to useful lives; these are a few of the attributes of the regular doctor. No matter in what age or clime he lives, the standard was, is and always shall be the same.

Let us take one or two types of the regular doctor and see whether I can in my poor way cause you to see them as they appear to my prejudiced eye.

First and foremost that appeals to us is the struggling, overworked doctor; one that is paid but little for his time and service; whose competency is unquestioned; one that never finds the night too dark, road too long, or mud too deep to prevent his ready response to the call of the suffering; needless to say he is generally found giving his life, time and best endeavor in every community; but generally found in rural life. His best friends are his patrons that come to him with all their trouble and worries, as well as their ills of the body. He is their confidant and his advice and judgment are accepted as without question.

He is a man that is competent to perform an emergency appendectomy or operate on an incarcerated hernia, set a fracture or amputate a leg. In fact he is an ideal who submerges his life for the welfare of others purely for the love he bears his profession.

He is the man that cannot say "No" to a professional call, or a touch for his last ten dollar bill. His advent into the sick room is like a ray of sunshine to the despairing invalid; his mere presence carrying confidence and hope to the sufferer. The atmosphere of dread is so clarified by his simple assurance that everything is all right that, with a sigh of utter reliance, the patient takes up the fight with renewed energy and hope.

He has no time or inclination to mix in the differences and bickerings of daily life; generally he will not take the time to meddle in the politics of the day; and this is one of his many faults because his influence is supreme with his people, and he with his colleague could about make or break any man, or men,

seeking office—as a la Capper in his first effort for governor. Life is too short, he will say, to fritter away on trivial politics. But when the doctor en masse puts down the foot and tells the people what is needed, the people will listen, and the thing is done and done right.

This superman is the recipient of more secrets than all the clergy and lawyers combined, and his adjudication, in all questions submitted for his decision by his people, is accepted without question or cavil.

For long periods of time the doctor has been more or less narrow in ordinary affairs of life. He has for ages been jealous of his competitors, no matter whether they were regular or exponents of some cult or fad. This fault is the real and only stain on his escutcheon, and thank God it is dying, surely dying, under the advanced education and mingling with his fellows, so that now he is not quite as ready to commit manslaughter or mayhem on some competitor who has been called in by one of his best patrons, as in former epochs.

You see the old shool man had some sort of a fool notion that his patrons were his, and his alone, body and soul, and whosoever trespassed within his domain did so at his peril.

Then we have the successful doctor, not only in his treatment but in the education of his patrons that "the laborer is worthy of his hire." He is very much up to date, a good mixer, insists on getting what belongs to himself if the patient is able, and at the same time gives his ability and time without stint to the worthy poor; believes in progress and takes a vivid interest in the politics of the day. When he gives out any ten dollar bills he sees that a good fat interest goes along and takes care that the paper is negotiable before parting with his hard-earned lucre. He and his kind will, in time, place the profession on the pedestal where it of right belongs, in the estimation of the public. He is in the class of Old Honesty, but has somewhat broader views than the old mossback on questions of professional courtesy and ownership of families of patrons. He rather likes to have his diagnosis, and so on, differed from;

is thick skinned enough to take a good lacing in a society meeting and hit back, if he can. He is a hustler of the profession and does not play to the gallery; he is proud of his profession and is jealous of its good name; gives all that is in him and demands what is his just dues. All hail!

Then there is the society or fashionable doctor who caters to fashion, fancies and foibles. He is regular at pink teas, society, bridge and the gossip of life. He would probably faint should some horrid person call him "Doc." He seldom is found at medical meetings where he might get some common dust on his patent leathers or have to listen to some coarse joke; is a regular Miss Nancy, la, de, da—but is nobody's fool—only a little to self-centered. Probably he is needed in the world, or else the Beneficent Guardian would not have perpetrated him.

The surgical doctor or, as he prefers to be called, surgeon—best leave off doctor and let it be assumed. To be a good surgeon necessitates one's being a good doctor, fine diagnostician, pathologist, extra fine anatomist and prognostician. Having all these perquisites the surgeon took up the neglected scalpel of the general practitioner, sharpened it up to suit and started out to carve for himself fame and fees—he has succeeded in both. He has taught the dear public the joy of giving, and not only of giving, but giving largely, so that the surgeon smiles and the victim smiles and talks, and tells others; and finally feels so good at the loss of one kidney that he hikes back and begs to have the other one also removed. No doubt about it the surgeon is certainly filling a long felt want and the profession ought, in common decency, break forth in peans of praise, and the "Master" of us all will no doubt greet them with "well done, thou good and faithful servant, thou hast taken away from those that had and from those that had not thou hast taken away the little they had."

Doctors that specialize have become a necessity in the demands of the world and many doctors seem to eke out a livelihood by devoting their time to different organs of the body. To be able to give satisfaction in these different Shintoisms necessitates, first of all,

that the doctor ought to be a good general practitioner before attempting to specialize; if he is not conversant with the general bodily ailments he is apt to drop into a rut and treat the organ without taking the whole body into account, then failure greets his efforts.

Cults. Medicine, from time immemorial, has been the mother of all sorts of fads, some sheilding themselves under the skirts of religion; others claiming consinship with medicine; others welded together with finance; others catering boldly with its superstition and the general idiocy of, so-called, educated people. No matter what base they tie to they are all purely and simply after the money to be taken from a credulous community. Superstition surely was a sad condition in the days of the Salem witchcraft era, but its viciousness was crushed and the loss of life was limited to comparatively few; whereas, the superstition of today is world wide and still spreading, claiming untold thousands of converts, and WHY? Simply from lack of proper education in the schools and colleges of today.

All the founders of so-called religio-medical fads and rapidly increasing cults of different pathies were smart enough to use some well known power of the mind, or conformation of the physical structure, as a base of fact.

Mama Eddy, wise old girl, saw the doctor was not using, as he should, the great control of the mind over matter, or nerve control, or suggestion, or whatever you may choose to call it, so she at once clothed it in the robes of christianity and started what is generally designated as Christian Science and a part of the world at least fell at her feet and howled for joy.

Then some other Jane seeing how Mama was piling up the milions, saw fit to go her one better and launched Divine Science with very fair success. Then New Thought was on deck, but it did not seem to cater to the superstition of the masses as had its predecessors. Anyway Mama, Jane and the other Dames realizing the great weakness of, in intellect, the human race and its great love of being humbugged did not hesitate to throw within its greedy maw all sorts of misinformation,

no matter how raw the thing might be it would be gobbled up and believed in as they were well aware that thousands of suckers were being born daily and only await the plucker to be thoroughly plucked.

As for our cousins of the pathies there is not so much worth while as they simply claim to manipulate the body and its organism for the eradication of all infirmities. As everybody will allow the massaging of different parts of the body is beneficial, there is no material objection to their claims until they agree to rub out the germ of tuberculosis, typhoid, measles and even botts; then I say we object, for if they are going to do all these wonderful things what on earth will we have to do? If they are going to dislocate and reduce the spinal vertebra at will, replace dislocated bones, change the flow of blood and make venous blood hike along in the arteries, and all other wonders perform, what, I say again, is there left for the rest of us. No matter, they have arrived in the fields of endeavor and find many governors, legislators, judges and juries awaiting their coming who exclaim to them, "Come on, fill in, take possession, move out these old mossbacks and put a little pep into life for you can fill a long felt want," so you see it's "Thumbs down for us."

When we thought everything was settled and we were put properly in place that dogone old blacksmith here in Wichita, after hearing of the wonder men, exclaimed, taking a critical look at the horse shoe he was forming, "I reckon it's up to me to show 'em a thing or two and just how that 'ar ol' skeleton should be handled. I start school right now," throwing down the shoe, "and all you fellers what wants a derplomer can ante over 150 bucks for three weeks talk and you'll get her shure." And then and there was the wonderful Chir-practic school originated. I understand his friend, the lawyer that generally sat on the chair whittling and watching the sparks fly, gave the name, telling him its meaning was Surgeon Doctor. So you see, as ever, that "great trees from little acorns grow" and of course "the cabbages follow from the cabbage seed."

I am here to say that Mr. Blacksmith ought to be well able to clip coupons as long as he

may survive and I wish him a "Requiescat."

Persecution, sneers of contempt never controlled or aborted anything; almost, without question, has given it an impetus toward success.

The biggot who rears back in his egotism and proclaims from the housetops the fact that there is nothing whatsoever in the different cults labels himself Fool. He that sneers and damns the different pathies should be known as an ass.

Then in conclusion we find that the ideal doctor is a man educated in such a way that he is less tinctured with superstition than any other class of man—because he has studied the formation of the body in health and disease from the ovum to the grave and so sees the impossibility of the spirit, or the soul, being visible, much less able to talk, especially in the manner of this world. He is a broad-minded man who overlooks the petty foibles and missteps of fellow human beings, who is more ready to extend the real helping hand to the fallen and give them another chance.

He has no hobbies, but uses all things equally, whether it is a big or little pill, quinine or a placebo. Who is the same sensible, even balanced, ever-ready man that makes no distinction twixt rich or poor, prince or pauper—if anything he is a little more attentive to the pauper.

The ideal doctor has the utter confidence of man, woman and child and when he forfeits that confidence he is no longer the ideal physician. In fact the ideal doctor is so near the angelic horde that mere words fail in the portrayal—He was, he is; he lives, dies, passes into oblivion and is soon forgot.

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LAW FOR THE DOCTOR

Right of Physician Selling Location and Practice to Resume Practice in Immediate Vicinity

LESLIE CHILDS

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To the professional man buying an established location and practice, the question of just what he is buying is of great importance. It is frequently the case that the intangible part of the property, usually designated as

"good will," is of far greater value than the land, shop, stock in trade, or what not that is purchased. This being the case, it is of great interest to know just what amounts to a sale of the "good will" of a professional practice.

If in the contract of sale there appears a specific stipulation that forbids the seller again to engage in the practice at or near the location sold, that of course is binding. Or if there is a stipulation reciting that the "good will" of the practice is parted with, that, too, in law will prohibit the seller from again engaging in the practice at the former location, within reasonable restrictions.

But suppose that neither of the above stipulations is set out in the contract, and the seller after a time resumes his practice, to the detriment of the buyer, has the latter any remedy, and if so what? The answer is that whether or not the buyer has any recourse will depend almost entirely upon the nature of the representations made by the seller at the time of the sale. The case of *Townsend vs. Hurst*, 37 Miss. 679, is one directly in point, illustrating the application of the law on this proposition in an admirable manner, the facts being substantially as follows:

The defendant advertised his place for sale, offering to sell his land, dwelling, shop, and stock of medicines. He represented it as a good location for a physician. He stated that his reason for wishing to sell was that he was in bad health and intended to remove to Florida. He also stated that he knew his land was not worth much, but that it was for his stand as a physician and for his improvements that he asked the price. He further promised to recommend the plaintiff to his patrons.

Upon the above representations the plaintiff, a young physician, purchased the land, dwelling, stock of medicines, etc., paying one-half the purchase price when it became due, and giving his note for the balance.

After the sale the defendant removed to Florida, but returned in a few months and resumed the practice of his profession within one mile and a half of his former stand. Whereupon the plaintiff refused to pay the balance of the purchase price, filing a bill to

enjoin the collection of the same, and asking for a rescission of the contract on the grounds of fraud, misrepresentation, and a failure of the defendant to live up to the contract.

It should be remembered that there was no stipulation in the contract of sale forbidding the defendant again to resume the practice of medicine at or near his former stand. Neither was there any express stipulation that there had been a sale of the "good will" of the practice. In passing upon this set of facts the court said:

"Good faith and justice require that parties making representations and holding out inducements intended to influence the action of those with whom they deal in matters of contract, and upon which they are expected to rely and do rely, should be strictly held to make good such representations, and to fulfill the reasonable expectations thereby created. It is of the last importance that courts of equity should rigidly adhere to a rule so consonant with morality and common honesty . . .

. . . The question is, did not these representations and this conduct on the part of the defendant, naturally and necessarily lead appellant (plaintiff) to believe and understand that defendant would at least not continue the practice of medicine in that immediate vicinity? Did he not understand from the representations and promises made to him that he was to have the defendant's stand and his "good will," as the main inducement to the purchase?

"The testimony leaves no doubt on this point. Was the appellant (plaintiff) deprived of the benefit he had the right to expect by the act of the defendant? This seems equally clear from the testimony. According to some authorities, by the conveyance of a shop alone, the good will passes, though not specifically named. . . . But in this case it was expressly sold as a stand for a physician, with the statement that defendant intended to remove to Florida, and with the promise to recommend appellant (plaintiff) to his patrons.

"Under such circumstances, the conduct of the defendant in returning and resuming his practice among his old patrons was such a violation of good faith, and such a fraud on

appellant (plaintiff) as entitles him to the relief he seeks."

By this opinion the court in effect held that there was an implied covenant that the seller would not re-engage in the practice at his former location; and that as he did this he could not enforce the payment of the balance due on the sale, the contract of sale being rescinded.

In conclusion then it may be stated. That if the contract of sale expressly prohibits the seller from re-engaging in the practice at a given locality, for a given time, it is binding. Or if the contract expressly specifies that the sale is one in which the "good will", is transferred, this will also prevent the seller from re-engaging in the practice in a manner that would interfere with the buyer.

On the other hand if the transfer is a straight sale, whether or not the seller will be prevented from re-engaging in the practice at his former stand will depend almost entirely upon the representations and promises made and relied upon by the buyer at the time of the sale. And the case reviewed above is an excellent example of representations and promises that will in themselves constitute a sale of the "good will," and thereby serve as a bar to the seller from re-engaging in the practice to the damage of the buyer.

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The Modern Method of Feeding Infants

Modern Infant feeding calls for a formula suited to the individual requirements of the individual baby. The physician now realizes that an infant deprived of breast milk must be fed as an individual. The nourishment from the infant's food is principally derived from cow's milk. The "foods" contain no mysterious life-giving elements but are used as modifiers. As such they are indispensable for their carbohydrate content, the added carbohydrate being necessary to make up for the loss of carbohydrate when cow's milk is diluted with water. It is also important that these "foods" are given as carbohydrates and should not contain a mixture of vegetable protein and fat, since the cow's milk supplies animal protein and fat in proportion suitable for the growth of most babies.

Infant feeding should be directly under the

control of the physician. Realizing this important fact, Mead Johnson & Company of Evansville, Ind., have manufactured a line of Infant Diet Materials suitable for the individual requirements of the individual baby. These products do not carry laity directions on the trade packages. Such directions on a package of food is the unsurmountable wall that differentiates between individual infant feeding and indiscriminate infant feeding. The physician may prescribe Mead's products with perfect confidence.

Meade's line of Infant Diet Materials consist of Mead's Dextri-Maltose (Dextrins and Maltose), Barley Flour, Dry Malt Soup Stock, Casec (Calcium Caseinate—for preparing Protein Milk), Arrowroot Flour and Cerena, all of which are supplied without any directions on the packages. Over and beyond the gratifying results obtained from Meade's products, the physician is given unlimited scope to his own creative talents, hence there will be a greater number of better babies in his immediate neighborhood. The mother who uses Mead's Diet Materials at the direction of her physician is disposed to place credit for the welfare of her baby where credit belongs, i. e., to the doctor. The Mead Johnson policy means the realization of an ethical ideal.

Interesting publications on Infant Feeding, prepared by Mead Johnson Company are well worth writing for. Letters addressed to them will receive personal attention from their Scientific Department.

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The teeth of the duck like that of the chicken is its gizzard. In a few generations, if man continues to swallow his food whole, he will develop a gizzard and do away with teeth in his mouth. Orthodontia will be a lost art and another load will be heaped upon the surgeon, that of gizzardectomy. However, in the physio-anatomical change the probability is that man's gizzard will have chitinous teeth and the tooth dentist may survive. The surgeon will open the gizzard and wait until the dentist fixes the gizzard teeth, the same as he now waits in an operation for a report from the microscopist on a section of a suspicious tumor.

THE JOURNAL

of The

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W. E. McVEY, M.D. - - Editor

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Politics and Medical Education

It has been only a few years since the profession realized or was made to realize, the full magnitude of the problem of medical education. Within an astonishingly short time the reconstructive process had begun and the small schools that were scattered over the country vanished like mist before the sun. The standards that were set for the education of a man to practice medicine necessitated a larger outlay for equipment and for salaried instructors than any could afford, except those institutions that were heavily endowed or that were directly supported by the state. When the new standards were adopted and the new requirements for admission to the medical schools announced there was ample room and there were ample facilities for all who desired to begin the study of medicine, in the larger schools then in existence. But it was and is the ambition of the profession in every state to see the medical department of its university developing along the lines of educational efficiency which have been laid down by numerous conferences of our most noted instructors. Not, perhaps, that all these schools are required for the education of men who wish to prepare themselves for the practice of medicine, but every loyal citizen of a state feels that the education of its young people should be conducted within its own borders and at its own expense. So strongly are the

people imbued with this sentiment that they submit without complaint to heavy taxation for educational purposes; public funds are lavishly appropriated for the building and maintenance of educational institutions; in fact education is regarded as sacred ground by all political parties, a sort of sanctuary in which no political battles may be waged and no political advantages may be sought—at least it has seemed to be so. It seemed to be so until medicine began to occupy a larger place in the educational program. Whether it be cause or coincidence it must be admitted that, with the larger, and rapidly increasing demands of medical education, the sanctuary has been invaded.

It may readily be conceived that any sort of an educational institution which must depend upon political favor for its maintenance will have a precarious existence. But under such conditions one must consider the probable fate of the high educational standards of which we boast.

Such an institution, if it must court political favor for its maintenance, must soon surrender to the same influences the control of its functions as an educational machine. It would certainly be a calamity to medicine if, for instance, a United States senator could, by his political influence, secure the graduation of an incompetent student in the medical school. It would soon destroy our high standard of medical education if it were possible for the governor of a state to secure a diploma in medicine for a student who had attended but a part of the required curriculum. If it were possible for a United States senator or the governor of the state to accomplish such an evasion of requirements it would be quite as possible for other political magnates to do the same.

When political favor must be courted by our educational institutions there is always danger lest they become political machines, supported by the public but operated by politicians for political purposes. At the present time public sentiment is intolerant of political interference in its educational program—except in medicine. Unfortunately the public is not yet aware of the great benefits which our medical schools have brought and are bring-

ing to them. To the public they are still only places where more doctors are made. It is time that the people be shown somewhat of the extensive research work in medicine and that they be given some definite conception of the character of the training our medical school is giving to the men who go there. For years we have been conducting public meetings in various parts of the state for the purpose of promoting public health propaganda. It would be a fitting and timely innovation to introduce into all such programs a lecture on medical education and its relation to the public.

If our medical school is to prosper, if it is to be properly supported, if our high standards of medical education are to be maintained it is imperative that public sentiment must be strongly in sympathy with it.

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National Cancer Week

In the campaign against cancer a so-called Cancer Week has been planned and it has been decided to hold this feature of the campaign during the week from October 30 to November 5.

If there is any virtue in organization, if there is any great efficiency in co-operative effort, then this campaign should be the starting point for a rapid decline in cancer mortality. The plan of organization includes a state chairman in every state. The state chairman is expected to appoint, or see that there is appointed, a local, or chairman of a local committee for every community of five thousand population. The local chairman then selects a committee to carry out the program which has been outlined by the American Society for the Control of Cancer.

The campaign is educational and intended to reach as many people as possible, but it is also intended that purely scientific meetings shall be held for the benefit of the profession. Lecture bureaus are to be established to supply lectures for the various meetings, for both public meetings and medical society meetings. It is also planned to send out quantities of literature on the subject of cancer and cancer control, and to enlist the interest and co-operation of the newspapers, supplying them

with selected articles about cancer, synopses of lectures and statistical reports.

All these things are to be carried on by the local committees and sub-committees. It is planned that every state health department shall co-operate in this campaign; that medical schools shall also assist, devoting at least one lecture to the subject of the prevention and control of cancer; that nurses training schools shall provide a series of special lectures on the subject of cancer. Insurance companies, women's clubs and all the welfare and social organizations are to be urged to take an active part in this week of intensive effort to relieve humanity of one of its most distressing and rapidly increasing afflictions.

The plan of organization and the program show that much careful thought has been given to their preparation, but the ultimate results of the campaign depend almost entirely upon the efficiency of the local committees and the co-operation they are able to secure from other organizations.

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CHIPS

The Second Annual Reunion of the 89th Division Medical Officers will be held in Kansas City, Mo., October 28, 1921.

The American Public Health Association will hold its semi-centennial celebration in New York City, November 8-18, 1921.

Cis Hopkins said that her dad never troubled trouble unless trouble troubled him.

Her dad was wise
And no surprise
That Cis a success is
Her pedigree
Of parents two
Helped make her
What she is—a live wire.

Fearfully and wonderfully made as the human body was in the beginning, man has added some kinds to its wondrous fearfulness.

Growsome as it is, there is but one way to learn the minute structure of the human body and that way is to dissect it as carefully as any other subject, to know it.

Our dislike to have a joke perpetrated on

ourselves, dates back to the time when the snake fooled Eve. Maternal impressions stick.

Flat foot and web foot are on the border line of the same specie and differ in strain. When a young person wears high-heeled shoes and the ankles kink or sway inward, flat foot is in the making and it precedes web-foot. The flat, web or goose foot specializes for aquatic sports.

The youth who earns his grub we like,
And to him credit give

The boob who doth his father strike
For his hash, he is no good to live.

Then emulate the active youth
And courage to him give
The boob in seeing this, fore sooth
May earn his right to live.

Five-year-old Willie at the breakfast table with his parents and grandpa. Willie—"Grandpa, can you croak?" "No Willie, why do you ask that?"

Willie—"I heard pa say to ma, he'd get her a piano when you croaked."

Economy personified. The lecturer had become enthusiastic and a little querulous in his talk on reforestation and the conservation of timber; finally asking, "Is there one man in this audience who has done his part in saving or preventing the waste of timber?" A little weazened old man in the audience arose and said, "I have. I always use a wooden toothpick twice."

Arrangements are being made for a special Pullman to leave Kansas City at six o'clock p. m., October 15th, arriving in Chicago the next morning, and leaving there on a special train at 10:15 a. m., October 16th, for the Meeting of the American Academy of Ophthalmology and Oto-Laryngology at Philadelphia, Pa., October 17th-22nd, 1921. Anyone desiring reservations on this car will communicate with Dr. J. L. Myers, 626 Lathrop Building, Kansas City, Mo.

Comedy lengthens life. Tragedy shortens life. Get your patients to laugh. Laughing develops the risorius (smiling) muscles and the law of synergic movement energizes all

of the unused muscles of the body. Now laugh! A little thought injected into the patient acts as a synergist to the laugh, psycho-therapeutically, by strengthening the will power of the patient.

An old negro wanted credit at the store; and when asked why he needed credit when he had such a fine crop of cotton, said: "da ducts got it. You see it's dis away sah," explained the old man, "I sent dat cotton to Memphis an da d'ducks da frait, an da d'ducks da storage, and da d'ducks da tax—yes, sah, da ducks got all dat cotton an dat's why I'm heah.

The most refreshing sleep is with the stomach empty. Not so with a hog. This is one mark of difference between the man and the hog. The quadruped hog sleeps best when full. The hog habit is easily acquired by the bi-mina. Another accomplishment by man, and practiced by one specie of the feathered tribe is the duck habit, that of alternating with a mouthfull of solid food and a swallow of fluid, washing the food down whole for the digestive apparatus to wrestle.

Skajaa, in a very comprehensive report on epidemic influenza, published by Gade's Pathological Institutes in Bergen, contends that influenzal pneumonia is due to the unknown virus of influenza and not to such organisms as pneumococci and streptococci. Uncomplicated influenzal infection of the lungs causes serous and hemorrhage effusion with diffuse smooth consolidation. The author reports three cases occurring at the same time and place and traced to the same source of infection. The conditions in the lungs were identical in each case, but bacteriological examination showed pneumococci in one, hemolytic streptococci with Pfeiffer's bacillus in another, and streptococcus mucous in the third case. He regards the relation of Pfeiffer's bacillus to influenza as problematical.

Among the results of the extensive research work which has been conducted by the United States Public Health Service, since the establishment of the Hygienic Laboratory in 1902 the following may be mentioned:

"In 1912 the Service was authorized to in-

vestigate the "diseases of man," and under the authority thus conferred it has made some very important contributions to the control of disease. To mention only a few, the studies of Anderson and Goldberger on measles showed that the disease was infective during the first three days only, thus rendering unnecessary the long periods of quarantine that were formerly in vogue; the extensive investigations of Stiles on the prevalence and on life history of hookworm led to effective measures for the control of this widespread cause of physical inefficiency; the work of Lumsden in rural sanitation resulted in simple and effective methods for the safe disposal of human excreta and in the extensive adoption of modern methods in rural health administration; the many sided studies dealing with malaria have been of inestimable service in devising practicable control measures for this scourge of the Southern States; the discovery of the identity of "Brill's disease" with typhus fever by Goldberger, and the working out of effective methods for controlling the disease by delousing has provided a barrier to the introduction of this pestilence into the United States; the painstaking investigations by Goldberger regarding pellagra have disposed of the various theories previously advanced as to the cause of this disease and have definitely placed pellagra in the class of diseases arising from deficiency in the diet, thus furnishing the means of preventing and treating this important malady.

Odic Activity is the new ray, which is produced by an electrical process. The name is derived from the peculiar principles employed in the process of generating the new ray.

One of the notable features of the discovery is said to be the possibility of the operator to control the rate of vibration or speed of this new ray, which can be changed or intensified. Also the polarity can be reversed and the direction of discharge controlled. Under the new discovery the ray is said to be produced without the use of a vacuum tube and expensive transformer used in x-ray production, or any other apparatus. The new apparatus is expected to be manufactured at a cost of less than \$50.

In view of the doctors present and other visitors the ray penetrated through five inches of solid lead, four and a half inches of cast steel, a sheet of granite wear and exposed a small photographic film placed at the end.—Pasadena Star-News.

Something over two years ago Duncan and Harding advanced the theory that the nausea and vomiting of early pregnancy was due to a deficiency of glycogen in the maternal liver. This was based largely on the finding in a considerable number of cases that ketonuria could be demonstrated and that all of them improved and most of them recovered on a high carbohydrate diet.

In a more recent report by Harding (*Lancet* Aug. 13) it is stated that nearly two hundred cases have been treated with carbohydrate feeding with very few failures.

It is argued that one of the functions of the placenta is to store glycogen for the growing foetus and that this glycogen must be drawn from the maternal liver. Starvation causes a lowering or disappearance of glycogen from the liver. Short periods of starvation cause a perceptible lowering of the glycogen content of the liver. Morning vomiting is due to the effect of the foodless period from supper to breakfast added to the depletion of the glycogen by the placenta. The continuance of nausea and vomiting lead to starvation and dehydration and the symptoms are intensified until recognized as pernicious vomiting.

The existence and the actual reality of hysterical crises is not to be doubted. The crises of hysteria, convulsive phenomena on the basis of nerve exhaustion are generally determined by the exterior circumstances of the patient, namely opposition, fatigue, boredom, etc. Sometimes they follow quickly, immediately, spontaneously without known cause and adopt a periodic type of evolution. They show themselves after the fashion of other periodic mental diseases of the dysthymic sort such as a periodic neurasthenia, periodic anxiety neurosis, etc. The hysterical crises are not simply simulation or exaggeration. It is easy to simulate a hysterical crises or to exaggerate its features but this does not modify the autonomy and individuality of the

hysterical crisis. To arrive at a precise diagnosis it is important for the physician to use the technique of the specialist. Hysterical crises, spontaneous or periodic are very frequently confused with epilepsy. Hystero-epilepsy does not exist, I think; there is clinically between epilepsy and hysteria a difference of nature and character which makes out of the question any symptomatic combination.—Benon R. La Presse, *Crises Hysteriques Spontanees Medicales*, Sept. 18, 1920. (Translated by Karl A. Menninger, M.D.)

Altruism is a sentiment, but rarely a fact. The interest which one occasionally manifests in another's business or private affairs is seldom for the others benefit, but frequently for his own gratification or possibly his own gain.

A doctor whose mind is occupied with the kind or amount of business his competitor is doing will most certainly have plenty of time to devote to it. It is a safe proposition that the doctor who knows all about the other fellow's business has very little of his own.

"Pro captu lectoris habent sua fata libelli"

—Books have their fates according to the capacity of the reader, is applicable to men as well as to books, for men, like books, are read by the multitude. Many great men have died in poverty and distress, unhonored and unknown, because they were not understood. Some of the most important discoveries in medicine were unaccepted or condemned until the advance in the knowledge of the profession enabled us to appreciate their real value. Theories that we regard as fantastic or absurd today may prove to be ultra scientific facts of tomorrow.

When there is a marked discrepancy between one's clinical findings and the laboratory findings in a case, one is likely to question his own judgment and accept the laboratory report as final. In spite of the rapidly growing efficiency and accuracy of laboratory procedures it may be well, in such a case, to recheck the clinical findings and verify those of the laboratory. If the laboratory reports the findings of gonococci in a specimen from a case in which one has determined the improbability, if not the impossibility, of such

an infection, it may be well to submit a similar specimen to another laboratory.

The psychoses or dementias which follow injuries to the trunk or limbs may be related practically to the original wound. They provoke slowly the development of a state of emotional depression on the basis of anxiety, anger or exhaustion. Upon this state of dysthymia or rather hyperthymia psychoses may develop, either delirium or dementia. The patient is predisposed. Yet without the wound and the mental upset which results the mental disease would probably not have been manifested. Consequently the relation of cause and effect is from a medical-legal standpoint possible and in part defensible.—Benon R., *Psychoses et Demences; Annales d'hygiene publique et de medecine legale*, December, 1919. (Translated by Karl A. Menninger, M.D.)

—B—

Reflections

BY THE PRODIGAL

A disease of the heart, blood vessels, kidneys, in fact many of the functional, chronic and organic affections of the human body are increasing. Cancer appears to be leading the van.

These pathological conditions come on, as a rule, in middle age and later life. It is at the time in life when the biological law begins the crucial test of mental and physical staying qualities in her subjects.

If there is a weak place in the line up in the personal history or the antecedents of the man, it is shown up and no compromise can be made. The line is broken or permanently weakened. This is nature's plan in qualitative selection of sentient beings, in proving their worth-whileness, and her method also of shortening the distal end of man's longevity. The same principle is carried out in breeding domestic animals to a high state of perfection. Diseases and susceptibility to disease increase when the grade of animal is improved. A superficial knowledge of how nature does things in her qualitative selection of her handiwork has a tendency to make a doctor an agnostic or a pessimist. He either does not know or thinks it is a fool way of doing

things and he strikes out in his own way, for a time, by pawing the air and ends in a fizzle, to begin all over again, after his experience, if enough time is left him. Whereas a deeply studied, conservative understanding of the biological plan of nature enables the doctor to take the hint, court nature, fall in line and work with her and not to cross her, and he finally becomes a believer in her way of doing things—and a peptinist—(a man in action). Man is taught by the lavish fecundity of nature that the verity she seeks to raise man upon to a higher level, physically and mentally, is quality and that quantity is to select from.

Again long life is not essential to reach the climax of human endeavors. A man can attain efficiency and accomplish more in forty years than it is recorded of what Methuselah did in over nine centuries. For all that is said of him is "he begat sons and daughters." That is, he just vegetated. Spreading a man's active potential energy out over a century does not, necessarily, mean that he has accomplished more in that time than if he had done the same amount of work in half that time. In fact it would show less ability and efficiency. The average age limit nature has set on man's life is a limit to him of what she expects him to do in the time allotted, and knows that he can do. Exceptions in age efficiency and time limit is a spurt of nature to show what she can do and to set up a goal for the doctor to approximate.

—R—

SOCIETIES

Stafford County Society

Society met in St. John at 3:00 p. m., Sept. 5th. Those in attendance were W. S. Crouch, W. L. Butler, Stafford; M. M. Hart, Macks-ville; C. S. Adams, J. C. Ulrey, J. T. Scott, St. John. Dr. J. A. Dillon and Mr. J. B. Rogers, of Larned were guests of the society.

Dr. Dillon read a paper on metastatic joint infections calling attention especially to gonorrheal infections. His method of treatment consists of injection into the joint of a 20 per cent formalin glycerine mixture. He usually aspirates the joint and injects about as much of the mixture as of fluid aspirated. He has also injected joints where no fluid

could be withdrawn. The injection is followed by very intense pain for several hours which requires heroic doses of morphine hypodermically but when the pain subsides there is no return and recovery is rapid. It is applicable in all classes of infection, save streptococcus which acts so rapidly that irreparable damage is done before the injection can act. Further treatment is directed toward removal of the source of infection. He recommends, in cases that do not show signs of improvement after using salicylates for 72 hours, treatment by the injection method. The paper was practical and very much appreciated by the members. Mr. J. B. Rogers, who is an instructor in biology at the University of Kansas, gave an interesting talk on hook worm and a recently discovered ameba, he having done research work while in the army in France. His talk was a real treat. The application of Dr. Fred Powell, Macksville, was read and on motion of Dr. Hart the rules were suspended and a ballot taken electing him to membership.

J. T. SCOTT, Secretary.

—R—

BOOKS

Medical Electricity, Roentgen Rays and Radium, with a practical chapter on Phototherapy. By Sinclair Tousey, M.D., Consulting Surgeon to St. Bartholomew's Clinic, New York City. Third edition, thoroughly revised and greatly enlarged. Octavo of 1337 pages, with 861 practical illustrations, 16 in colors. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

Any work on electricity or electrotherapy must be frequently revised if any pretense is made to keep up to the times. This is a very technical work and yet meets the requirements of the practitioner. As might be expected a large part of the book is devoted to the x-ray—about 600 pages. This is thoroughly up to the minute. The technique is very carefully detailed and the points in diagnostic interpretation are clearly stated. The text contains much valuable information concerning the newer applications of roentgentherapy and the results obtained.

A Text-Book of Pathology. By Alfred Stengel, M.D., Sc.D., Professor of Medicine, University of Pennsylvania, and Herbert Fox, M.D., Director of the Pepper Laboratory of Clinical Medicine, University of Pennsylvania. Seventh Edition, reset. Octavo of 1111 pages, with 509 text illustrations.

many in colors, and 15 colored plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$8.50 net.

The seventh edition of Stengel and Fox has been largely rewritten and a great amount of new material has been added. It is needless to say to those who are familiar with former editions that this is one of the most complete works on pathology ever published. It has not been prepared especially for the student or the general practitioner, but for all who may have a desire to know something worth while about the subject of pathology.

Keen's Surgery, Volume VIII. By Surgical Experts. Edited by W. W. Keen, M.D., LL.D., Hon. F.R.C.S., Eng. and Edin., Emeritus Professor of the Principles of Surgery and Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo of 960 pages, with 657 illustrations, 12 of them in colors. Philadelphia and London: W. B. Saunders Co., 1921. Volume VII and VIII and Desk Index Volume Cloth, \$25.00 net per set. Sold by subscription.

The first chapter in this volume, one on surgery of the muscles, is by Binnie of Kansas City. The chapter on surgery of the thyroid is by Charles H. Mayo. The chapter dealing with operations on bones and joints is by Warbasse.

Being a supplementary volume its subject matter seems to be rather disconnected and at times fragmentary, but its purpose is fulfilled in bringing the complete work up to the most advanced knowledge in surgery. A very carefully prepared index to the eight volumes is now also supplied.

Infections of the Hand, a guide to the surgical treatment of acute and chronic suppurative processes in the fingers, hand and forearm. By Allen B. Kanaval, M.D., Asst. Professor of Surgery, Northwestern University Medical School. Fourth edition, revised. 185 engravings. Published by Lea & Febiger, Philadelphia and New York. Price, \$5.50.

In his revised work the author has added a chapter on the restoration of function in infected hands. He believes that careful treatment may restore complete function even in cases of tenosynovitis. Much attention is given to the anatomical structures and to the natural tendency of infections to follow definite courses. The book is quite thoroughly illustrated.

Operative Surgery by J. Shelton Horsley, M.D., Attending Surgeon, St. Elizabeth's Hospital, Rich-

mond, Va. Published by C. V. Mosby Co., St. Louis. Price \$10.00.

The author has endeavored to emphasize the importance of extirpating or correcting the pathology and restoring the physiology of the tissues or organs, as well as doing a beautiful dissection. There are certain physiologic and biologic principles which should not be overlooked. These principles are evidenced in the development of a collateral circulation around an aneurysm by partial or intermittent occlusion of the artery, and by the developing of a blood supply in a flap by the gradual dissection of a flap in different stages.

The book is excellently illustrated and is mechanically a printer's masterpiece.

Diseases of Children. By Herman B. Sheffield, M.D., formerly instructor in Diseases of Children, New York Postgraduate Medical School and Hospital. With 238 illustrations and nine colored plates. Published by C. V. Mosby Co., St. Louis. Price, \$9.00.

This book is divided into fourteen sections. The usual classification of diseases has been modified to correspond to modern conceptions of etiology. Considerable attention is given to pathologic anatomy and to differential diagnosis. All of the modern laboratory tests are described. Much of the author's personal experience is embodied in the work and he has endeavored to present the latest knowledge on the subject.

Tuberculosis and How to Combat It. A Book for the Patient. By Frank M. Pottinger, M.D. Published by C. V. Mosby Co., St. Louis. Price \$2.00.

The author's purpose has been to supply the tuberculous patient with such information as will enable him to co-operate in all measures adopted for his cure. Explanations are simplified and physiologic reasons are given for the things required to be done. The author discusses the disease, the mode of action, the common symptoms, weather conditions, the environment, measures for the prevention of the spread of infection and problems concerning the patient himself.

Physical Diagnosis. By W. D. Rose, M.D., Lecturer on Physical Diagnosis and Associate Professor of Medicine, University of Arkansas. Second edition. 309 illustrations. Published by C. V. Mosby Co., St. Louis. Price \$8.50.

The text has been largely rewritten and con-

siderable new material has been added. Some additions have been made to the clinical anatomy of the thoracic and abdominal organs. Emphasis has been placed upon the correlation of anatomy, pathology and physical signs. The book is well illustrated. Most of the illustrations are well adapted for the better interpretation of physical signs.

General Medicine. Volume I of the Practical Medicine Series, under editorial charge of Charles L. Mix, M.D. By Frank Billings, M.D., and Burrell O. Raulston, M.D. Published by The Year Book Publishing Co., 304 S. Dearborn St., Chicago. Price \$2.50.

This is one of a series of eight volumes issued during the year, covering the advances in medicine and surgery during the year previous to its publication. This volume contains much very valuable material for the general practitioner and it should be remembered that it is all new.

Handbook of Electrotherapy for Practitioners and Students. By Burton Baker Grover, M.D., President Western Electro-therapeutic Association. Published by F. A. Davis Co., Philadelphia. Price \$4.00.

The author states that this book is intended to give practical instruction concerning the indications and use of the various currents in practice. He has endeavored to condense and simplify the subject so that it may be more easily understood by the general practitioner and student. At any rate the author seems to be confident of the therapeutic efficiency of electricity in its various forms applied to a very large number of the minor and major ailments of the human race.

The New Pocket Medical Formulary. By William Edward Fitch, M.D. Third edition, revised. Published by F. A. Davis Co., Philadelphia. Price \$2.50.

This is just a book of prescriptions for everything from abortion to x-ray burns. The diseases are arranged in alphabetical order and the formulae by number. The book also contains formulae for fluid foods, diet lists, table of differential diagnosis and a dose table.

Practice of Medicine. A manual for students and practitioners. By Hugh Dayton, M.D., New York. Fourth revised edition. Published by Lea & Febiger, Philadelphia and New York. Price \$2.25.

Having reached its fourth edition it can be

admitted that pocket manuals on the practice of medicine must be in demand. The author states that the changes made in the last edition have been made necessary by advances in the knowledge of infectious diseases and yet the diseases of the pharynx, larynx and tonsils have been excluded for want of space. No matter how reliable the text may be it is hard to say very much for a pocket manual which attempts to cover the whole subject of the practice of medicine.

Treatise on Fractures in General, Industrial and Military Practice. By John B. Roberts, M.D., Emeritus Professor of Surgery, University of Pennsylvania, and James A. Kelly, M.D., Associate Professor of Surgery, University of Pennsylvania. Second edition revised and reset. With 1,081 illustrations. Published by J. B. Lippincott Co., Philadelphia.

Since the World War it has been necessary to revise a great many plans for the treatment of disease and to rewrite many books. Roberts and Kelly found ample reasons for revising their very excellent work on fractures. The extensive war experience in fractures settled many contentions between surgeons, taught many surprising facts and disproved some accepted theories. In the new edition the authors have endeavored to present the newer methods as well as the older methods that have been newly established.

The Assessment of Physical Fitness, by Correlation of Vital Capacity and Certain Measurements of the Body. By Georges Dreyer, C.B.E., M.A., M.D., Fellow of Lincoln College, Professor of Pathology in the University of Oxford. In collaboration with George Fulford Hanson. With a foreword by Charles H. Mayo, M.D., Rochester Minn. Cloth. 128 pages, with 24 tables. Price \$3.50 net. New York: Paul B. Hoeber.

In this book Dr. Dreyer points out the differences in physical measurements that should be expected in different occupational groups. He makes three classes: those who do hard physical work, those who do light physical work and those who lead a sedentary life. The book is made up largely of tables of weights and measurements.

Human Heredity. By Casper L. Redfield. Published by the Heredity Publishing Co., 333 Dearborn St., Chicago. Price \$1.50.

The subject is the development and inheritance of mental and physical powers. The first chapter deals with the processes by which the powers of protoplasm are modified

either toward increase or decrease of power. The final chapter applies the processes of modifying protoplasm to questions of disease and immunity.

The Allen Treatment of Diabetes. By Lewis Webb Hill, M.D., and Rena S. Eckman, with an introduction by Richard C. Cabot. Fourth edition. Published by W. M. Leonard, Boston.

Experience has apparently demonstrated the importance of a systematic dietary control in diabetes and the most careful observers are convinced that much of the success in the management of these cases depends upon the patient himself being able to plan his diet intelligently, to know enough concerning the methods for calculating the diet to co-operate with the physician. The book is particularly adapted to meet this requirement.

General Pathology—An Introduction to the Study of Medicine. Being a discussion of the development and nature of processes of disease. By Horst Oertel, Strathcona Professor of Pathology and Director of the Pathological Museum and Laboratories of McGill University and of the Royal Victoria Hospital, Montreal, Canada. Cloth, 357 pages, with illustrations. Price \$5.00 net. New York: Paul E. Hoeber.

The author treats his subject under two heads: Etiology and the pathological processes themselves. Under etiology he discusses bacteria and infections and the higher parasites, physical agents, such as heat, cold, air, pressure, electricity, light rays, chemical agents and poisons. Under pathological processes he discusses the pathologic anatomy and histology, or the morphological changes of diseases; and pathogenesis, the manner by which these changes develop and the nature of the lesions. Considerable space is given to the discussion of heredity and predisposition.

The Surgical Clinics of North America. (Issued Serially, one number every other month.). Volume I, No. 3. By Boston Surgeons. 345 pages, with 159 illustrations. Per clinic year (February, 1921, to December, 1921). Paper \$12.00 net; cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

In the Boston number of the Surgical Clinics, Nichols clinic on head injuries has first place. In the clinic by Graves particular attention is given to treatment with radium. Osgood's clinic on tuberculosis of the knee joint is instructive. Wilson has a very interesting discussion on the Syme operation showing results and application of artificial foot.

Whittemore's article on lung abscess is very exhaustive and well worth careful study. Cotton's reconstructive clinic is another of those demonstrations of the wonders that may be accomplished in this line of work.

The Medical Clinics of North America (Issued Serially, one number every other month) Volume 4, Number 6. By Boston Internists. Octavo of 297 pages, including complete Index to Volume 4 and 35 illustrations. Per clinic year (July 1920 to May 1921.) Paper, \$12.00 net; cloth \$16.00 net. Philadelphia, and London: W. B. Saunders Company.

Many readers of this number of the Clinics will be interested in Christian's articles on the right and wrong uses of diuretics, and a good many will find much to think about in Walker's article on the causes and treatment of hay fever, and the article by Rackemann on the vaccine treatment of asthma. O'Hare has a clinic on vascular hypertension that may be read with profit; and this may be said of practically all of the articles in this number.

The Surgical Clinics of North America (issued serially, one number every other month), Volume I, Number 2. By New York Surgeons. 326 pages, with 116 illustrations. Per clinic year (February, 1921, to December, 1921). Paper \$12.00 net; cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

In this number of the clinics Erdmann presents a number of very interesting cases and Willy Meyer has a very interesting and instructive article on posture in post operative treatment. Pool has a clinic on removal of complete cervical rib. Hartwell also presents several interesting cases. Albee's clinic showing plastic surgery of the hip and femur brings out with much emphasis the possibilities in these cases. Heyd's clinic includes a variety of subjects and cases, one of which in particular, chronic appendicitis, brings out a very definite clinical picture of this condition.

Essays on Surgical Subjects, by Sir Berkeley Moynihan, K.C.M.G., C.B., Leeds, England. Illustrated. Published by W. B. Saunders Co., Philadelphia.

This is a collection of addresses, lectures and essays that have been published at various times and in various journals. In this volume are included: The Murphy Memorial Oration, The Ritual of a Surgical Operation. The Diagnosis and Treatment of Chronic Gastric

Ulcer, Disappointments after Gastro-enterostomy, Intestinal Stasis, Acute Emergencies of Abdominal Disease, The Gifts of Surgery to Medicine, The Surgery of the Chest in Relation to Retained Projectiles, and The Most Gentle Profession.

—R—

A Clinical Meeting With an All-Star Cast

An attractive innovation in medical meetings has been undertaken by the Mississippi Valley Medical Association, to be held in St. Louis on October 13, 14, and 15. For this occasion a most unusual program, entirely free from the ordinary trite and formal medical paper reading, has been arranged.

Program participants have been carefully selected from eminent specialists among the leading authorities in the various fields of medicine. The preliminary announcements contain such names as Dr. Llewellys F. Barker, of Baltimore; Dr. Anthony Bassler, of New York; Dr. Chas. H. Frazier, of Philadelphia; Dr. John de J. Pemberton, of Rochester, Minn.; Dr. Isaac Abt, of Chicago; Dr. C. Jefferson Miller, of New Orleans, and others of equal prominence. These noted clinicians have accepted invitations to give scientific addresses (not papers) consisting of clinical demonstrations and discussions upon borderline subjects pertaining to their particular specialties. Because of their clinical bearing and wide medical scope, the subjects chosen will undoubtedly be of more interest to the general practitioner than to the specialist.

The third day of the program will be given over to clinics in the various St. Louis hospitals and universities, at which the guests of this Society as well as St. Louis physicians will participate.

The date of this meeting coincides with the Centennial Celebration and Pageant of St. Louis, which event will no doubt afford additional means for entertainment and social enjoyment to those attending this meeting. Dr. William Engelbach, University Club Bldg., St. Louis, is chairman of the Committee of Arrangements and will gladly answer inquiries requesting further information.

National Board of Examiners

The National Board of Medical Examiners has just completed the first five years work and with it the trial period of its usefulness. The principle which this board has stood for, namely, the establishment of a thorough test of fitness to practice medicine which might safely be accepted throughout this country and abroad, has been widely accepted. Since this board was organized by Dr. W. L. Rodman, in 1915, eleven examinations have been held. These examinations have been conducted on the plan of holding at one sitting, a written, practical and clinical test for candidates with certain qualifications, namely a four-year high school course, two years of college work, including one year of Physics, Chemistry, and Biology, graduation from a Class A Medical School and one year's internship in an acceptable hospital. These examinations have covered all the subjects of the medical school curriculum and have been conducted by members of the board with members of the profession resident in the place of examination appointed to help them. Such examinations have been held in Washington, Philadelphia, New York City, Boston, Chicago, St. Louis, Rochester (Minnesota) and Minneapolis. During the war a combined examination was held at Fort Oglethorpe and Fort Riley. There have been 325 candidates examined, of which 269 have passed and been granted certificates.

Starting with the endorsement of the Council on Medical Education of the American Medical Association, American Medical College Association and various sectional Medical Societies, the recognition of the Army, Navy and Public Health Service Medical Corps of the United States and certain State Boards of Medical Examiners, the certificate is now recognized. Also by twenty states as follows: Alabama, Arizona, Colorado, Delaware, Florida, Georgia, Idaho, Iowa, Kentucky, Maryland, Minnesota, Nebraska, New Hampshire, New Jersey, North Carolina, North Dakota, Pennsylvania, Rhode Island, Vermont and Virginia, the Conjoint Board of England, the Triple Qualification Board of Scotland, the American College of Surgeons and the

Mayo Foundation of the University of Minnesota.

There has been such a widespread demand for an opportunity to secure this certificate by examination, that the board has now adopted and will put into effect at once, the following plan: Part I, to consist of a written examination in the six fundamental medical sciences: Anatomy, including histology and embryology; Physiology; Physiological Chemistry; General Pathology; Bacteriology; *Materia Medica* and Pharmacology. Part II, to consist of a written examination in the four following subjects: Medicine, including pediatrics, neuropsychiatry, and therapeutics; Surgery, including applied anatomy, surgical pathology and surgical specialties; Obstetrics and Gynecology; Public Health, including hygiene and medical jurisprudence. Part III, to consist of a practical examination in each of the following four subjects: Clinical Medicine, including medical pathology, applied physiology, clinical chemistry, clinical microscopy and dermatology; Clinical Surgery including applied anatomy, surgical pathology, operative surgery, and the surgical specialties of the diseases of the eye, ear, nose and throat; Obstetrics and Gynecology; Public Health, including sanitary bacteriology and the communicable diseases.

Parts I and II will be conducted as written examination in Class A Medical Schools and Part III will be entirely practical and clinical. In order to facilitate the carrying out of Part III, subsidiary boards will be appointed in the following cities: Boston, New York, Philadelphia, Minneapolis, Iowa City, San Francisco, Denver, New Orleans, Baltimore, Galveston, Cleveland, St. Louis, Chicago, Washington, D. C., and Nashville, and these boards will function under the direction of the National Board. The fee of \$25 for the first part, \$25 for the second part and \$50 for the third part will be charged. In order to help the board the Carnegie Foundation has appropriated \$100,000 over a period of five years.

At the Annual Meeting held June 13th, of this year in Boston, the following officers were elected: M. W. Ireland, Surgeon General, President; J. S. Rodman, M. D., Secretary-

Treasurer, E. S. Elwood, Managing Director.

Mr. Elwood will personally visit all Class A Schools during the college year to further explain the examination, etc., to those interested. Further information may be had from the Secretary-Treasurer, Medical Arts Building, Philadelphia.

—R—

DEATHS

Dr. August De Backer, St. Marys, aged 60, died June 22, apoplexy. He was a graduate of Creighton University Medical School, Omaha, 1896.

Dr. Weston H. McConnell, Lafontaine, aged 60, died August 18. He was a graduate of Medical College of Indiana, Indianapolis, 1882. Had practiced at Lafontaine for over 30 years. Health has been failing for past three months, following an automobile accident.

—R—

Cancer Week

From the Committee on Health and Public Instruction to the Secretaries of the County Medical Societies:

The American Society for the Control of Cancer is planning a nation-wide week for education in the control of cancer—October 30 to November 5, 1921.

Your Committee on Public Health and Education of the State Medical Society has agreed that advantage should be taken of the occasion of the wide publicity given the movement by the American Society for the Control of Cancer by co-operation with them in holding meetings throughout the state in every city of the first and second class, under the auspices of the local medical society, to which the general public is invited.

Will you please present this matter to your local society at your next meeting. If meetings are not regularly held during the summer months, it is suggested that you confer with the officers of your society and other prominent members, so that your state committee may be advised of your decision.

Your committee respectfully suggests that arrangements be made to hold a public meeting in each of the larger towns or cities in your jurisdiction; that you secure some dis-

tinguished member of the profession from outside your own society; that a committee on program and arrangements and a committee on publicity be named from among those of your membership who will "work at the job."

The State Committee will undertake to supply a limited number of speakers to societies providing traveling expenses are paid. The first requests received will be assigned first.

The State Committee has been assured by the American Society for the Control of Cancer that a moderate amount of literature would be available for distribution at the meetings, and the Society's syllabus as to how the subject might be best presented to a public audience would be furnished each speaker.

The State Committee is of the belief that an exceptional opportunity is presented to the medical profession to render a very great service to their respective communities, which will result in the saving of human life in the years to come.

Early action by local societies is necessary, so the State Committee may secure the literature and the syllabus above mentioned.

Please advise us of your action in the matter.

C. Klippel, M.D., James W. May, M.D., F. H. Smith, M.D., O. D. Walker, M.D., H. G. Norton, M.D., L. L. Uhls, M.D., S. J. Crumbine, M.D., Chairmen.

Syphilis in Pregnancy

Now that the Wassermann test has been accepted as conclusive means of diagnosis, every case of pregnancy should have a routine serological examination, even when no suspicious symptoms are present. This might be regarded as a prophylactic measure. Gonorrheal ophthalmia is combated by a routine instillation into the eyes of every newborn child and in instances failure to do so is punishable. The prophylaxis of diphtheria is another recent development. It is said that at least 40 per cent of syphilitic women present no objective symptoms nor are they aware of their condition. This accounts for the widespread character of the disease and its innocent propagation. Hereditary syphilis is one of the most important factors responsible for many

chronic diseases and the obstetricians must consider themselves responsible to a certain degree. The recent work of J. Whitridge Williams and others opens a field for broad study. If a study of a series of consecutive cases shows positive Wassermann reactions in four or five per cent, it is probable that the distribution is as extensive as is usually assumed. A more extensive study of this subject will do much to reduce the incidence of this disease.—The American Journal of Obstetrics and Gynecology. Vol. I, No. 7, April, 1921.

The Toxicity and Trypanocidal Activity of Sodium Arsphenamin

In parasitic disease in which specific remedies are applied to destroy the micro-organism, the value of the drug is determined by the chemotherapeutic index, i. e., the relation of the curative dose to the maximum tolerated dose. The authors have studied sodium arsphenamin and compared it with arsphenamin and neoarsphenamin. In this article which is the third of a series on the subject, they gave tables showing the toxicity and trypanocidal activity of sodium arsphenamin and also a table indicating the therapeutic indexes of the three drugs.

In summarizing, the following facts are emphasized:

1. The highest tolerated dose of sodium arsphenamin for white rats by intravenous injection was found to be from 212 to 215 mg. per kilogram of weight. The average tolerated dose of arsphenamin was 105 mg., and of neoarsphenamin, 200 mg. per kilogram.
2. The smallest trypanocidal doses of sodium arsphenamin varied from 16 to 24 mg. per kilogram of weight; the smallest trypanocidal dose of arsphenamin was 5 mg. and of neoarsphenamin, 9 mg. per kilogram.
3. The therapeutic dose (dosis curativa) of sodium arsphenamin was from eight to thirteen times less than the highest tolerated dose (dosis tolerata) which expresses the therapeutic index of this compound. The therapeutic dose of arsphenamin was twenty-one times less than the tolerated dose, and the therapeutic dose of neoarsphenamin was twenty-two times less.

4. Therefore, while sodium arsphenamin possesses the low toxicity of neoarsphenamin, it is much inferior to both arsphenamin and neoarsphenamin in trypanocidal or curative activity.

5. The true gage of a remedy is expressed by its chamotherapeutic index, i. e., the relation of the curative to the toxic doses.—Jay Frank Schamberg, John A. Kolmer, and George W. Raiziss, in *The American Medical Association Journal*. Vol. 70, No. 26, June 25, 1921.

—————R—————

Results of the Wassermann Test on 1518 Men at San Quentin Prison

The Wassermann test was performed on 1,518 men of which 166 or 10.93 per cent showed some luetic involvement. The following are some data obtained:

Married.....	39.75 per cent
Single.....	60.25 per cent
Admitted a venereal disease.....	66.27 per cent
Denied a venereal disease.....	33.73 per cent
Gonorrhea only.....	32.53 per cent
Syphilis only.....	5.42 per cent
Both gonorrhea and syphilis.....	27.71 per cent
Never received anti-syphilitic treatment.....	96.99 per cent

Of the 166 cases, 139 men received treatment at San Quentin. The course of treatment consisted of an injection of arsenobenzol every four to eight weeks. In the interim the patient receives mercury rubs nightly for six days followed by a week of rest. This procedure is continued as long as signs of lues are present or until symptoms of mercurialism appear.

Up to date 77.53 per cent have shown marked signs of improvement. A few cases remain "Wassermann fast" in spite of prolonged treatment. There is no adequate explanation for such occurrences. In this connection it may be noted that the reliability of the Wassermann test as an indication of the patient's condition has been seriously questioned by some, it being claimed that certain cases though actually cured, still give positive reactions. Another point of interest is that

22.3 per cent of those who showed improvement first gave a negative reaction followed by a positive one again, before the final negative or at least a reduced Wassermann resulted.

CONCLUSIONS

1. The Wassermann test should be made a routine procedure in all complete medical examinations.

2. A negative history and physical examination does not preclude the possibility of lues being present.

3. The treatment as outlined above is an effective and practically safe method of bringing about a negative Wassermann reaction.

4. Five or six injections, accompanied by mercury rubs extending over a period of from one to two years are usually sufficient to bring about the desired result.

5. A small percentage of cases show no improvement in spite of prolonged treatment.—G. W. Nagel, *California State Journal of Medicine*, Vol. XIX, No. 5, May, 1921.

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Public Health Activity and Private Practice in Venereal Disease Control

A great disinterested public spirit is seeking through public health officers to wipe out a group of controllable infections—the venereal diseases. A large body of equally well intentioned private agents, in the form of the medical profession, derives its livelihood, at least in part, from the same source. An antagonism between the public activity and private interest, which might so easily develop in such a situation, would be wholly unnecessary and deplorable. The United States Public Health Service and the associated venereal disease divisions of various state boards of health realized the implications of their entry into this field of medical practice and submitted a declaration of principles and intentions, the summary of which is:

They indorse and urge the continuance of a campaign of public education.

They urge the evaluation of the propaganda thus far carried on in as exact social, psychologic, and medical terms as possible.

They prefer education and persuasion to legal process in regard to law enforcement and regulation.

They ask the intelligent and sympathetic co-operation of the medical profession. This co-operation can best be obtained by the rapid extension of specialized teaching facilities for the medical students; by making available to physicians the latest developments concerning the venereal diseases; and by the development of state diagnostic facilities for the use of practicing physicians.

Having accepted its share of responsibility for developing an appropriate equipment, the Public Health Service and its affiliated state organizations urge physicians at large to move for a general raising of the standard of treatment of the venereal diseases. In the words of the resolution:

This implies that a physician who is unfamiliar with or unprepared to employ modern methods in the management of these diseases should not accept such cases for treatment, but should refer them to some private or public physician who is properly equipped.

If the medical profession can treat the venereal disease patients adequately, the United States Public Health Service and the state boards of health pledge themselves not to invade the field of private practice in this phase of medical work.

The representatives of the public health services concede and define the value and the basic requirements of training for this work, and recognize as one of the essential requirements the provision of inspiration and incentive to individual development and reward for initiative.

The public health authorities further frankly concede that under existing conditions the Public Health Service cannot hope to offer a career with adequate returns to those who devote themselves exclusively to the work of venereal disease control; and recognize with justice the right of the highly trained man to seek in private practice the material return for special training and proficiency which public parsimony now denies him.

So sincere and genuine an effort at co-operation as this declaration represents deserves the warmest response from the medical profession. It should be the privilege of the medical profession to bring its influence to bear

to dignify public service in medicine. It is also the duty of the medical profession, and to its own interest, to co-operate in the development of educational and diagnostic facilities and to raise the standard of the treatment accorded the patient with a venereal disease.

The extinction of private practice in venereal disease is not a consummation to be wished, but it will be one to be deserved if the medical profession cannot measure up, by a process of internal organization and adjustment, to the standards of the most altruistic and energetic public agent in the field.

The United States Public Health Service and the state venereal disease bureaus, backed by one of the most powerful public sentiments now concentrated on any health problem, have expressed a desire for co-operation with the medical profession and indicated a way for its achievement.—By John H. Stokes, M.D., in *The Journal of the American Medical Association*, April, 1921.

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Interim Report of the Neurosyphilis Investigation of the Massachusetts Commission on Mental Diseases.

In order to make early diagnosis of neurosyphilis, the psychopathic department applied the Wassermann test to the spouses, children, and parents of syphilitics. After diagnosing the cases as positive neurosyphilis, treatment was instituted. As a systematic basis, a time span of three months during which intensive treatment with arsphenamine and mercury were given, was chosen. In this time it could be determined whether a case will react favorably or otherwise. The author considers the cases as cured when the Wassermanns become negative in the blood and fluid, globulin and albumin practically normal, cells reduced to within 5 and a slight gold reaction in three or more tubes, with partial reduction in the syphilitic zone, provided, of course, the patients have mentally recovered and show no more organic defects than an Argyle Robertson pupil or a pathological knee jerk, for example.

RESULTS OF TREATMENT

In a comparative study of the laboratory changes in a limited number of clinically im-

proved cases (28) in which the investigators were able to get complete before-and-after tests of sera and spinal fluids, they found the following:

IMPROVED CASES

A. Improved as to Wassermann reaction on blood and fluid and gold sol., 9 or 32 per cent.

B. Improved as to Wassermann reaction on blood only, additional, 5 or 18 per cent.

A and B. Improved as to Wassermann reaction on blood, 14 or 50 per cent.

C. Improved as to gold sol only, 3 or 11 per cent.

D. Improved as to Wassermann reaction on cerebro-spinal fluid and gold sol, 1 or 4 per cent.

E. Stationary as to Wassermann reaction on serum and gold sol, 9 or 32 per cent.

F. Worse as to Wassermann reaction on serum and fluid and gold sol, 1 or 4 per cent.

Under A are represented nine cases—seven of these had a positive reaction on serum and spinal fluid and a more or less typical paretic curve; the other two had negative Wassermann reactions on the serum but were otherwise the same. All nine cases showed great improvement after intensive treatment extending over a period of from three months to four years.

Under B there are five additional cases in which the blood serum became negative, the spinal fluid remaining unchanged. Thus including the cases under A and B, there were 14 improved cases or 50 per cent in which the Wassermann reaction of the serum became negative.

In a study of 27 cases, with complete data taken before treatment and again shortly before death, it is shown that 56 per cent of the cases were practically unaffected by the treatment.

One case showed evidence of improvement as to Wassermann reaction on fluid and the gold sol, but the Wassermann reaction on the serum remained positive.

Two cases showed improvement in the Wassermann reaction on both serum and fluid; in one case two doubtfuls changed to two negatives; and others, both positive at

first, changed to both negative with a slight improvement on the serum only.

Distinct improvement in the gold sol curve without reaction in the Wassermann test occurred in four cases or 15 per cent. One of these cases showed a practically negative gold sol with a terminal marked tabetic involvement during the last four months.

Fifteen cases or 56 per cent showed no changes in the serology or fluid findings from the time of the first examination until death.

One case in which the Wassermann reaction was first on the blood all the other reactions positive for paresis, grew worse until after treatment and at remission the blood serum also became straight positive before death.

According to this analysis of fatal cases in which minute care was taken to observe all the laboratory and clinical changes, including also, besides the Wassermann tests and gold sol reaction, the cell count, albumin and globulin estimation, it was found that over 56 per cent of the cases in which the diagnosis of neurosyphilis is crystal clear both from a clinical and laboratory standpoint may be expected to end unfavorably. With exceptions, little or nothing can help these fully developed "committed type" cases.

CONCLUSIONS

In 428 cases of neurosyphilis treated during a period of four years, 129 cases, or practically 30 per cent, showed definite benefit; 125 cases are under treatment at hospitals, of which a certain percentage can be expected to show similar improvement. Among 93 cases that have drifted away, another definite proportion, probably a larger number comparatively, can be presumed to have benefited from treatment.

There are two definite groups of cases of neurosyphilis; the early or the psychopathic hospital group, and the advanced committable or custodial group. The early case is not met in insane hospitals except in such as conduct out-patient departments. These cases also frequently first come to professional attention through the field of general or "internal" medicine.

The relatives of syphilitics and neurosyphilitics form a most important group in which not only syphilis but the earliest degrees of

neurosyphilis, in the presymptomatic stages are brought to light by lumbar puncture and sero-analysis. It is in these types that by far the most important benefit can be expected.

Early diagnosis preferably before pronounced mental symptoms have appeared gives the greatest promise of successful results. For it seems that for some reason the curative agent is less able or practically unable to influence certain bacterial toxins after they have had time to combine with the neuroplasm. Another instance of this phenomenon is shown in the case of the tetanus toxin.

Apparently advanced neurosyphilis is not a contra-indication to treatment—there is a distinct, though not large, percentage of such cases that amply gratify the efforts of intensive attack.

In early and typical cases the most exhaustive serological and spinal fluid examinations are the best guides to the diagnosis. The provocative method should not be overlooked.

Intensive and prolonged treatment to the point of saturation with the combined force of the three specifics—arsenic, mercury, and potassium iodide. Arsphenamine has been preferred to neoarsphenamine as more lasting in its effects.

The *therapia praesens* of neurosyphilis is but a transition state in rational syphilotherapy. Medical science has discovered several good clues which must be followed up, and others ferreted out and run down, before the solution of the problem is complete. Indeed, the successful treatment of paresis and tabes as the crippling craniopagus, etc., may ultimately be realized in the field of preventive medicine. With chemotherapy, however, Ehrlich had doubtless found the most vulnerable approach to the treponemiotic diseases, but further research is necessary and other combinations must be found before the life of this anthropophagous pest is successfully snuffed out.—By Oscar Raeder, M.D., Bulletin of the Massachusetts Department of Mental Diseases. Vol. IV, No. 2, April, 1920.

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Clinical Indications for Dosage in Vaccine Therapy

The laboratories of G. H. Sherman, M. D. (the laboratories of applied immunology),

offer the following suggestions for the practical and successful application of Polyvalent Bacterial Vaccines, with the hope that they will be helpful to you in your work while treating pyogenic bacterial diseases.

The size of each dose of Polyvalent Vaccines should be such as to excite an immunizing resistance to it by the patients immunizing apparatus.

A fatigued immunity responds to a small initial dose. Such an immunity obtains in cases that are chronic, of long standing and carrying no temperature. This initial dose is for diagnostic purposes, gives the patient's index of reaction, and points out how relatively inadequate his immunity is.

Select the proper Sherman formula and give an initial dose of two-tenth mil. (cc.). Do not repeat until the patient has built up the greatest possible resistance against this dose. That is the day when the patient is at the peak of his immunity curve, and occurs in from one to ten days. On this day the patient has a decided feeling of well-being, as compared to days previous to the administration of the dose.

The proper interval between doses is most important. Each dose should be given on the patient's good day, when he is at the height of his resistance, whether this day is the next day or the tenth day after giving the vaccine. The dose should be increased according to the patient's reaction. If the reaction is severe, showing that the immunity was built up with difficulty, the next dose should be the same size.

A proper reaction is a slight feeling of malaise or drowsiness on the following day; this is an indication that the patient's immunity was not overtaxed in resisting this amount of antigen.

Dosage should be gradually increased, always being given on the patient's good day, until the amount given is one mil. (c.c.) or more.

A vigorous condition of the cells concerned in immunity will respond to large doses frequently repeated; such cases are acute infections in the earlier stages, carrying a high temperature. The higher the temperature and more acute the stage of the infection, the

larger and more frequently repeated should be the dosage. In such cases give 1 mil (c.c.) of the indicated Bacterial Vaccine every twelve to twenty-four hours, increasing the interval as the temperature falls.

Immunologic science teaches that these infections are overcome by cell secreted protective substances and that in conformity with nature's methods, cell stimulation for the rapid production of these protective substances is best accomplished when body cells are brought under the influence of Sherman's Polyvalent Bacterial Vaccines.

Data on request to physicians.

Epilepsy and Hysteria

L. Marchand, Presse Med. 28:627., Sept. 8, 1920

Numerous and conflicting authorities are reviewed in this discussion of the various relations in which hysteria and epilepsy may conceivably be associated. Tentative conclusions are reached in an endeavor to clarify the prevailing conceptions of the two syndromes. Three questions are answered:

1. In the course of a series of convulsive seizures in a given case, can certain convulsions be distinctly epileptic and certain others distinctly hysterical? Yes; occasionally in traumatic epilepsy, otherwise rarely. Nonconvulsive hysterical manifestations in epileptic patients are less infrequent. However, most patients with so-called post-epileptic hysteria would better be classed as pure hysteria.

2. In a series of convulsions, can any seizure be transitional between epilepsy and hysteria, or a combination of the two? No. A so-called combined attack of "hystero-epilepsy" is simply hysteria.

3. Can established hysterical convulsions eventually become transformed into epilepsy? No. Most cases formerly interpreted in this way seem rather to have been epileptic from the beginning, i. e., grand mal had merely been preceded by undiagnosed petit mal. Other belonged in Group 1, suffering from both diseases concomitantly; hysteria disappeared, epilepsy remained. It is also conceivable that epilepsy may have occurred in a person who had already had hysterical con-

vulsions, without there being any demonstrable connection between the two.

(Abstracted from Archives of Neurology and Psychiatry, March, 1921, page 334.)

Psychic Factor in Exophthalmic Goiter

The neurogenic theory in explanation of the etiology of exophthalmic goiter is attractive to Israel Bram, Philadelphia (Journal A. M. A., July 23, 1921). As most observers are now convinced that in emotional disturbances the functions of the endocrines, especially the thyroid, suprarenals and pituitary are involved, he concludes that the neurogenic and pluriglandular theories are interdependent, constituting one theory, which he might term the neuro-endocrine theory. Instances of exophthalmic goiter, each presenting a history of underlying psychopathic makeup, and indicating the exciting factor to be acute emotional strain, are cited. It appears relevant to Bram that the syndrome termed exophthalmic goiter is not *goiter*, and the sooner this affection is removed from the classification of goiter, the sooner will a rationalization of therapeutics be effected. With the removal of any discoverable infectious foci, a properly outlined regimen of rest, diet, drugs and other measures, and with a practical psychotherapy pervading the whole, there is effected a correction of physical and mental vicious circles; there is a restoration of emotional and endocrine balance; and this, without added shock, without scars, with almost no recurrences nor mortality rate. Such a patient, having been under the guidance of the physician for a year or longer, finally becomes self-supporting; evinces a stronger grasp on life and a healthier conception of its meaning; possesses greater mental stolidity than ever, and is more than ever equipped to face the world "irreproachable and unafraid."

Experimental Measles

Having previously established the possibility of transmitting measles from monkey to monkey, Francis G. Blake and James D. Trask, Jr., New York (Journal A. M. A., July 16), attempted to develop a method of pro-

phylactic inoculation against the experimental disease. A preliminary experiment having shown that the blood of an infected monkey was infective for other monkeys from the last day of the incubation period to the second day of the exanthem, it was then thought possible that by repeated transfer of the infection with large amounts of blood collected during this period, the virulence of the measles virus for the monkey might be enhanced until a potent "fixed" virus was obtained. The outcome of two such series of passages, however, was quite the reverse, and repeated transfer resulted in attenuation of the virus so that after from eight to twelve passages it was no longer capable of inducing experimental disease. The reasons for this gradual diminution in the infectivity of the measles virus for monkeys are obscure, and will require further experimentation to elucidate them. A virus attenuated by animal passage, if injected intracutaneously in small amount, will produce a local reaction without evidence of a subsequent general infection. The local reaction is characterized by a cutaneous edema of from twenty-four to forty-eight hours' duration, which is followed in some cases by a local exanthem limited to the skin adjacent to the site of inoculation. If the area of skin showing the reaction is excised, minced and ground in salt solution, and the resulting suspension injected intracutaneously in another monkey, a similar local reaction may occur. It has also been found that similar results may be obtained by the intracutaneous injection of an originally potent virus which has been attenuated by preservation in glycerol in the icebox. Whether monkeys so inoculated will consistently develop an active immunity against infection with a potent virus is indicated by experiments now in progress, but not yet sufficiently complete to be reported in full.

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New Method of Treating Fracture of Os Calcis

After performing a subcutaneous tenotomy of the Achilles tendon, David C. Straus, Chicago (*Journal A. M. A.*, July 16, 1921), pushes a Steinmann pin through the skin, from the medial to the lateral surface of the heel, so as to avoid striking the posterior tibial ves-

sels, and so as to lie immediately above the tuberosity of the os calcis and immediately anterior to the Achilles tendon. The pin extends an equal distance beyond each side of the foot. Several squares of sterile gauze are forced over the pointed ends of the pin and are bound firmly against the skin by means of a sterile gauze bandage, to guard against the possibility of infection when the plaster cast is applied. The Steinmann caliper is now applied to the pin, and downward traction is effected by an assistant. The reduction is then made in the usual manner. The foot is held in the corrected position, and sheet wadding is applied from the knee to the toes. A plaster-of-Paris cast is applied, reaching from the tuberosity of the tibia to the heads of the metatarsal bones. While waiting for the cast to set, continuous traction downward is maintained. This constitutes the great advantage of this method. While this downward traction is being maintained, upward pressure on the anterior fragment and the instep is maintained by use of the orthopedic block, care being taken to hold the astragalus in its proper position. This position is maintained until the plaster has set. The Steinmann pin is now removed. The cast is left on for four weeks.

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Interrelationship of Function of Thyroid Gland

In 1914 Kendall separated from the thyroid gland the pure chemical compound thyroxin. He proved thyroxin to be its active agent. Various observations led Henry S. Plummer, Rochester, Minn. (*Journal A. M. A.*, July 23, 1921) in 1917, without previous estimates of the basal metabolism following the administration of thyroxin, to give intravenously to a myxedematous patient, supposedly having no thyroid gland, 22 mg. of thyroxin, and to anticipate the reaction which followed. The reaction was approximately the average of those obtained from several hundred doses since administered.

Two milligrams of thyroxin a day may hold the basal metabolism from 20 to 30 per cent above normal; 3 mg. a day may hold the basal metabolism 50 per cent above normal.

Fifteen milligrams of thyroxin given intra-

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Anesthesia and Analgesia in Obstetrics

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

One of the most neglected phases of obstetric practice is the matter of giving women more relief during the hours of labor, and thus saving them the physical and nervous exhaustion which leaves so many of them weakened and shocked to a degree that many are months or even years recovering from it, and are left in poor condition to go through the nursing period and the trials and vexations of motherhood. The recollection of the suffering they underwent leaves such fear of the confinement that many are opposed to further pregnancies. A commission of British physicians has been appointed to formulate some plan whereby women could be assured easier labors thereby hoping to increase the birth rate in England. This is, in its last analysis, the fault of the medical profession, which has carelessly drifted along the same course that the midwife necessarily pursued, for she could not use any drug or anesthetic, and, since child bearing is as old as the race itself, the woman and her family for centuries had no other thought than that it is nature and a natural process for which little could or should be done. There have been heroic efforts made to teach students and patients the danger of sepsis, but in our teaching we have had very little stress laid upon the dangers of exhaustion, both physical and nervous, with all its attendant sequelae. There is a very large and a rapidly increasing number of women nervously unfit for the stress of pregnancy, labor and motherhood, that makes it imperative that these women should have more attention given them for relief of pain and suffering, both physical and mental, during this supreme physiologic and psychic

test of her life. The physician who insists on being called only in time to deliver the baby is not giving these women the care and attention they deserve and should have, and there is no wonder they are a long time recovering their physical and nervous energy and poise.

De Lee long since recognized the need of doing more to conserve the physical and nervous energy of these cases and evolved his so-called prophylactic forceps operation. He hesitated some time before publishing this, and when he did read his paper before the American Gynecological Society, it brought down a storm of protest and even ridicule upon him—even from men of wide experience and observation.

To shorten the second stage, thereby saving the patient hours of the hardest part of her suffering, Potter of Buffalo has resorted to version and extraction, dangerous as it is. This has appealed so strongly to the laity that last year he confined over 1,100 women, 954 of which were by version and extraction. He confined one-sixth the cases in Buffalo last year.

How long would it take a family to change surgeons today, if one were to insist on operating a case of appendicitis without complete relief of pain during the operation, or insist on operating in the home on a bed ill adapted for most careful and painstaking work? Friend surgeon must have his patient in a well appointed operating room with an assistant, two to four nurses, and his patient completely under an anesthetic given by a trained anesthetist, all of which the family insist on and are willing to pay for. Imagine friend surgeon following his patient from one side of the family bed to the other with his once sterile covering badly contaminated or lost altogether! Yet many women and their families expect the physician to conduct a labor

aseptically and get good results with this very condition of affairs, not feeling the same patient surrounded by such conditions with a fifteen minute operation before her for appendicitis has any attention coming to her with hours, sometimes 24 or more, of the suffering and mental anguish of child-birth. We as physicians are largely to blame for we have not done our part in insisting on greater attention to relief of these cases. It is the old story of educating the physician and laity. This is easily possible. There never has been a panacea for the suffering of childbirth and probably never will be. This is due to the difference in nervous types of women, social status, environments, varying lengths of labors, the widely different operative procedures necessary and the different personalities of the attending physicians. But one thing is true, and that is the awakening of American women to the fact that a large part of their suffering can be relieved and there is an ever increasing demand that they have more done to save them from the ordeal. There can be no fixed standardization of methods and procedures to give them relief, for the foregoing reasons and only by the most particular and painstaking observation and study of each patient can one determine what procedure will best be fitted for each case and even then one will be confronted by the necessity of changing his methods with some cases or the best results will not be obtained.

During the months of prenatal care the patient's confidence can be gained and her nervous characteristics studied, which will give one a fairly accurate idea of how to conduct her labor. But we must at all times keep before our mind that each one must be individualized, and that one hundred consecutive confinements can no more be conducted on the same plan than the same number of typhoids or pneumonias can be treated exactly alike, and as in the latter cases one frequently has to change his treatment, so during a labor one must often change if he is to give the patient the greatest freedom possible from her suffering. The first and greatest essential of all is gaining the patient's confidence, and when this is done the battle is half won. The woman who has absolute control of her nerves and

gives herself over completely to her attendant, so that subconsciously she is directed by him, gets the greatest relief by any method. The woman who goes into her labor afraid and apprehensive or with previous intention of making herself and everyone else as miserable as possible gets the least relief of all, and usually has what she expected—a most terrible experience. I am continually impressed with the role played by the subconscious mind in these cases and realize more and more the ease with which a patient can be carried through with little intense suffering when her attendant has its control. Chloroform and ether have enjoyed the longest and most widespread use during labor. They are most useful during the second and especially the perineal stage and up to the present are perhaps the anesthetics of choice for the last stage. They have, like everything else a limited field and cannot be given over long periods without danger to the patient and baby, and when pushed to the point of complete relief will greatly retard the labor by making the pains shorter, farther apart and weaker. Ether irritates the bronchial mucosa and kidneys and should not be used in respiratory infections or nephritis, Chloroform acts more quickly, gives greater relief thereby and takes much less of it than ether, but is not so safe in the hands of the inexperienced, owing to a much narrower margin of safety. Then, too, it should never be given in cases of hepatic toxemia or with weakened or impaired cardiac conditions. Owing to its slower action ether does not give the desired relief soon enough. I believe a larger amount of both these is usually given than is necessary because the one to whom they are trusted fails to start the administration soon enough, that is they let the pain develop too far before they start the inhalation. If the anesthetist could be induced to keep a hand on the uterus and at the first sign of a contraction would start the patient to breathing deeply and rhythmically much good would come from a far less amount of either of them. Furthermore if the patient had something to relieve them before they become nervous, hysterical or worn out with the dilating pains and become unmanageable in their respiratory efforts, greater relief could

be given them. We have all seen these cases take little short shallow inspirations and then cry out with a prolonged exhalation thereby blowing all the anesthetic from the mask and fail to inhale enough to give relief. The presence of sympathetic relatives tends to make these cases more unmanageable and militates against the best results in most cases. You have all seen the quieting effect of sending the relatives out of the room when their holding the patient and talking to her has resulted in completely upsetting the morale of the delivery room. Copious hot enemata, sodium bromide and choral may do a yoeman's service during the early stage, by their relaxing and quieting effects, and will make the later anesthetic all the more useful and helps the patient very greatly.

If the patient has been looked after carefully and her physical and nervous systems kept fit during her months of pregnancy, if she has been kept from the destructive effects of toxemia, has had plenty of exercise in the open air, has not been allowed to put on too much weight, and has been mentally reassured and prepared for her labor, she will go through a much greater part of the first stage without much suffering unless she is of an extremely nervous type. A great deal can be done during the early part of the first stage by spending a little time with the patient, through reassurance, especially if she becomes nervous and apprehensive. If the labor starts in the night and a competent attendant can keep her family away from her and keep the surroundings quiet, she may relax and even doze between the pains thus promoting dilatation and conserving her strength for the second stage. I find that this is the best time to repeat and reimpress the patient with the necessity of her keeping her nervous poise, and it really does help them to bear the nagging early pains better. This is the time that the presence of a tactful competent nurse is of greatest importance, both to the patient and physician. If the dilating is slow or the patient becomes nervous and tired the hypodermic use of morphine combined with either hyoscine hydrobromide or scopolamine will have the most gratifying results. It gives the desired relaxation and rest between pains,

will give the patient both physical and mental rest and in no way can be accounted harmful to either the mother or child. I do not repeat the morphine, though it is sometimes desirable or even necessary for best results to repeat the hyoscine or scopolamine.

That this does not very materially effect the labor has been proven in many cases of toxemia where much larger and repeated doses of morphine have been given to prevent convulsions during the labor. It is remarkable how often one is surprised to find a greatly shortened first stage after the use of these drugs, given at the beginning of nervousness and suffering. Another distinct advantage in their use lies in the lessened amount of anesthetic necessary, later on whether given to the analgesic or anesthetic stage.

When dilatation is well accomplished if some further relief is necessary personal experience with NO² and oxygen has convinced me that it is the anesthetic of choice, in the great majority of cases. But bear in mind my former statement that there is no standard for these cases and even in the same case we may find it expedient or even necessary to change. NO² and oxygen are of distinct advantage for analgesia because of their quicker action, their quicker elimination, less irritation to bronchial mucosa, less effect on the baby, less depression of the mother and, instead of lessening the strength of the contraction, they increase its force and duration and are not accompanied by nausea and vomiting. The patient is at no time asleep and her fully awakened mental state between the pains enables the attendant to keep control of her and to secure her co-operation better with the succeeding pain. In reading and hearing the experience of men who claimed to have used it with discouraging results I am sure their disappointment is because of its improper use, due to the faulty technique in giving it. To get the best results it must be started before the patient is fully conscious of the pain herself—this can be done by keeping a hand on the uterus where the beginning contraction can be detected before the patient is aware of it herself. Then three or four deep inhalations can be taken before the crest of the contraction is reached and the patient voluntarily

holds her breath and bears down, then one or two more inhalations carries her to its end and leaves her with added feeling of relief and rest. For the best relief and results this is as far as its use should go unless forceps are to be applied or some manipulation is to be carried out. Thereby we are free from over excitation and rigidity of the patient and do not find her cyanosed at the end of the pain. For best analgesic effect it must not be carried to point of dizziness or cyanosis or to point where the patient cannot understand and answer questions intelligently, thereby being unable to co-operate. There is no bad effect on the baby, nor any cumulative effect on either mother or baby. The objection of its prohibitive cost is also greatly reduced by this method of use. To get the amount of relief by ether or chloroform the length and intensity of the contractions are greatly reduced as well as the frequency of their recurrence. I have repeatedly demonstrated these latter points on the same patient by switching from gas to ether and back again. In fact it frequently happens that ether has to be given during the last few pains to retard the delivery sufficiently to protect the perineum. The necessary apparatus for properly giving gas in these cases is expensive in the first outlay and rather too cumbersome to be carried about to private homes, but there are small portable machines on the market that work fairly well if one is careful in their use. In those cases where chloroform and ether are contraindicated I know of no other means of relieving the suffering that is as grateful to the patient as this, and to those of you who have been disappointed in NO² and oxygen I can only say that your technique was faulty rather than the method. In the use of ether and chloroform let me again call your attention to the desirability of starting the administration before the contraction is well under way and withdraw then before it has completely passed off, and whatever you are using do not lose sight of the psychic control of the patient or only a part of the desired result will be gained. The use of twilight sleep has been relegated to its place of usefulness after a widespread trial in all parts of this country. There are conditions where it is of the great-

est use but unfortunately it requires a greater number of competent attendants, and much closer attention of the physician. To my mind it is especially adapted to the first stage and, if possible to stop its action when the perineal stage has been reached, would be ideal. There is no doubt but the mothers come from their deliveries much stronger and do not show the exhaustion following labors conducted by other methods. But the infant mortality is much higher. However, observation has led me to believe some of these twilight sleep babies are lost by over zealous efforts to establish active respiratory movements. They should be kept warm, preferably in hot bath with slow artificial respiration given with the hand compressing the chest wall and should not be handled roughly for they are simply deeply asleep from the morphine, and will breathe only at infrequent intervals. It takes some time for its elimination and over activity can only result in harm. Many of its advocates refuse to use morphine where the baby will be borne in an hour and a half. Then I should say in the early stage of labor resort to suggestion and psychic control, hot rectal enemas, bromides and chloral; after the contractions are well established and dilatation begun, morphine with hyosine or scopolamine, repeating the latter, but not the morphine, and when nearly or fully dilated NO² and oxygen, or small amounts of ether or chloroform, remembering that any inhalation anesthetic must be started before the patient is aware of the contraction herself if we are to give relief. Remember also the cumulative effect of ether and chloroform, that ether irritates the bronchial mucosa and is not well borne in nephritis and that chloroform cannot be given in hepatic toxemias, and that both have a tendency to lessen the intensity and frequency of contraction. NO² should never be given to a cardiac case that needs cardiac stimulation for these cases do not stand NO² at all and a fatal collapse may end the case suddenly.

CONCLUSIONS

1. There is a growing demand on the part of women for greater relief from pain of childbirth. They are entitled to this relief.
2. Properly chosen and administered drugs

or anesthetics not only do no harm but actually help in successful outcome of the case.

3. There is no standardized method of analgesia or anesthesia in labor, so to get the best results possible, cases must be carefully individualized.

4. The procedure of choice should give the greatest relief possible with least danger to both mother and child and leave the mother with the least possible evidence of the physical and psychic ordeal she has passed through.

5. During first stage hot enemias, bromides and chloral, morphine combined with either hyoscine hydro bromide or scopolamine are the remedies of choice. During second stage NO² and oxygen, ether or chloroform in the order given produce greatest relief with least danger to mother and baby.

6. The psychic control of the patient is necessary to gain the best results whatever method is used.

7. The physician who insists on being called only at the last is not giving his patient the attention that she has a right to expect and receive.

8. Threatened eclampsia or toxic cases demand relief more than ordinary cases to prevent convulsions. Heart cases must have relief from suffering to protect and support their heart action. That is, the less her physical or nervous systems are able to stand longer strain or suffering the more imperative it is to relieve her and conserve her strength.

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Inversion of the Uterus

J. WESLEY FAUST, M.D., Kansas City, Kansas.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Definition—Complete or partial turning of the uterus inside out.

Hirst says "this is the rarest of all the accidents to a parturient woman." Edgar says it is the rarest accident of labor, and many prominent obstetricians have never had a case. That it is a rare occurrence in the hospitals is shown by the fact that in Vienna Maternity, from 1849 to 1878, in more than 250,000 labors, Braun did not see a case. In the Rotunda Hospital, Dublin, there were 190,000 parturients with only one inversion of the

womb. Winkel had not a single case in 20,000 confinements. Hirst had three cases, two complete and one partial. DeLee has reported one case of his own, while Edgar does not mention any personal experience. My personal experience is limited to two cases, and in talking with my confreres one has had a personal encounter.

Most of the cases occur in private practice, and as DeLee says, are probably due to errors in the art of obstetrics, to which I can not whole-heartedly concur, as both of my cases were spontaneous. It may occur in abortion as early as the fourth month, Holmes having seen a case at the fifth month. The accident happens with equal frequency before and after delivery of the placenta, and it may appear on the second, sixth, even the fifteenth day after delivery.

The inversion may be partial or complete, the former when the fundus turns down into the cavity of the uterus, the latter when the womb turns completely inside out. The partial cases may go unrecognized sometimes, and nature may care for the same by rectifying the defect. The inversion may lie wholly within or without the vagina, and in the latter be accompanied by a considerable degree of prolapsus.

The lesser degrees of inversion probably occur at the placental site—the so-called atony of the placental site. In the rarest of all instances the inversion of the womb may be associated with inversion of the vagina, when there must have been a complete prolapsus of the uterus.

Etiology—It is most common in primipara and here is due to paralysis of the placental site, too vigorous compression of the fundus, or traction on the cord. Inversion may occur spontaneously. DeLee during removal of the placenta, in one case, felt the uterus contract, the contraction ring open out, with descent of the body of the uterus.

The view that inversion could be produced by contraction of the fundus with relaxation of the lower uterine segment, as was held by Rokitsansky, Duncan and others, is thereby proved. Schauta strongly asserted that it was atony of the uterus which caused the acci-

dent. DeLee is convinced that the view of Rokitansky is at least sometimes correct.

In the so-called paralysis of the placental site, a condition in which this part of the uterine wall becomes so relaxed and flabby that it sags down into the womb cavity, the projecting portion is seized upon by the remainder of the uterine muscle as a foreign body and shoved toward the vagina. Sometimes this contraction reinverts the uterus. A plausible cause is placental adherence and relaxation of the uterine musculature. An atonic uterus may be inverted by the weight of the placenta. An atonic uterus may be inverted by any increase in intra abdominal pressure, such as occurs in sudden action of the abdominal muscles in straining to expell the placenta, coughing, sitting up in bed, turning in bed, raising the hips to place a clean sheet, or even straining at stool. Spontaneous inversion may result from child pulling on too short a cord during natural delivery.

Induced cases of inversion are probably caused most often by traction on the cord in delivery of the placenta (24 out of 47 cases of Vogel). Again, too powerful expression of the placenta by Crede's procedure, or traction on adherent placenta or membranes may invert the womb. Cases are recorded where in the extraction of adherent placenta the accoucheur's hand acts as the piston in a syringe, drawing the fundus into the uterine cavity.

While many cases are reported as spontaneous, we must presuppose a disposition to inversion because of the relaxation of the uterine walls, for if the walls are firmly contracted the accident cannot occur, and most cases will probably be laid at the door of an improper technique; mismanagement is generally responsible for this complication.

Symptoms—DeLee says inversion is gradual. Hirst says inversion occurs suddenly, in which I concur. Edgar says the symptoms are acute pain, hemorrhage and shock. The pain is usually sudden in onset, the woman emits a cry and sinks back upon the bed in shock. Hemorrhage may be slight or profuse, but is the rule, especially if the uterine sinuses are left open; shock is produced by the drag on the broad ligaments, ovaries, tubes and peri-

toneum, perhaps from some reduction of intra-abdominal pressure with displacement of the heart and diaphragm. Shock is disproportionate to blood loss. In these cases of shock one would immediately think of syncope, hemorrhage, rupture of the uterus, or inversion.

The hemorrhage may be slight or profuse, and is dependent upon the presence or absence of the placenta, and the condition of relaxation or contraction of the lower uterine segment.

Examination of the abdomen discloses absence of the uterus in the usual position and the fingers slip down into a cup shaped cavity of the uterus. Vaginal examination shows a globular body, around which one may feel the lower uterine segment and around which the fingers cannot slip as in the case of a polypus. The cervix feels like an inverted collar about the body of the uterus. Sometimes the vaginal fingers feel the inverted body of the uterus filling the vagina. If a rectal examination be made the absence of the uterine body, with a cup shaped depression at the cervix is diagnostic.

Ileus from incarceration in the inversion funnel has been reported. Mistakes in diagnosis occur. In one case the inverted uterus was torn away, thinking it to be a fibroid. In another the ecraseur had been applied, thinking it to be a polypus, when the mistake was discovered.

Diagnosis—We must differentiate inversion of the uterus from (1) syncope, (2) hemorrhage, (3) rupture of uterus, (4) fibroid or polypus, (5) twins.

Syncope will be differentiated on vaginal examination, as will the cause of hemorrhage if present. Rupture of uterus usually occurs before the birth of the child, while inversion only after baby is in the world. Inversion may be confounded with uterine polyp. The latter is insensible and does not contract on examination, and its pedicle may be traced upward through the os uteri into the cavity. If the placenta is wholly or partially attached to the uterus and the physician is present at the time of accident, the diagnosis is clear. The opening of the tubes may be seen on the lower part of the tumor,

the uterus is generally particularly sensitive and contractile.

Prognosis—Mortality is as high as 50 per cent. Death due to hemorrhage or shock, often occurs soon after the accident (within half an hour). It may also be caused by incarceration of an intestinal loop, peritonitis, puerperal infection or by gangrene. Prognosis depends on promptly reducing the inversion. Of 109 cases 80 died, of which 72 died in a few hours after labor. Winkel reports 54 cases with 12 deaths. Vogel 22 per cent mortality. Cases are on record in which recovery ensued after the uterus had sloughed. A few cases in which manual reposition failed, were spontaneously restored.

Treatment—The accident can usually be avoided: hence the prophylactic treatment is important. Precipitate expulsion of the fetus should be prevented and unnecessary force in Crede's method and traction on the cord avoided. The hand should be held on the fundus while delivering placenta and membranes.

The curative treatment consists in the immediate reduction of the uterus. The bladder and rectum should be emptied, and reduction should be accomplished in a surgical manner, either with or without anesthesia, by taxis.

The more quickly the treatment is instituted, the more successful the result. If the placenta is still adherent or nearly so, an attempt should be made to replace it with the uterus, as this favors non-hemorrhage. The fist should be placed against the fundus of the uterus, or the fingers grasp the same, and by pushing or squeezing maneuver replacement is attempted. After replacement has occurred the uterus must contract before the hand is withdrawn. In cases in which the uterus cannot be everted without great shock, operation should be delayed temporarily, and shock measures instituted. If the uterus cannot be returned hemorrhage can be combated by ergotin intramuscularly or pituitrin injected directly into the uterine musculature. Stimulate contractions by putting the baby to the breast.

Cases which cannot be reduced had best be sent to a hospital where proper cleansing of the probably infected uterus can be accom-

plished. A few cases will need section. If so, and the reduction cannot be accomplished from without and within, dilatation of the lower uterine segment interfering with the reduction, posterior incision into the constricting ring will allow of reposition. This procedure obtained in one of my cases, where persistent effort from without and within necessitated section of the constricting ring with resuture. The patient has since given birth to a live baby of eight pounds three ounces without complication.

Case 1.—Mrs. C. E. A., age 26—2 para was delivered in her home of seven-pound girl—no ergot, pituitrin or forceps. Placenta and membranes delivered intact one hour after baby was born, slight Crede. Nothing unusual until the third day post partum, when the patient against the order of the physician arose to defecate over the slop-jar. Was seized during the act with terrific pain, and immediately went into a condition of shock. One hour later when seen by myself, three women with dirty hands were trying to force the uterus into place. A complete inversion with prolapsus had occurred. Immediately sent to St. Joseph's Hospital, where the patient was put on operating table, and ether administered. There was slight hemorrhage from loosening of many old clots in sinuses. Tubal openings plainly seen. Reduction by taxis after one hour of strenuous work failed. The abdomen was opened, and a combined attempt from above and below again failed. After slitting posterior portion of constricting ring from within outward, eversion was easily accomplished. She had a stormy time for two weeks, high temperature, chills, and fetid discharge, but finally recovered and three years later was delivered by myself of a healthy child without anything of moment in her history.

Case 2.—Mrs. T. S.—Primipara, was confined February 3, 1921. Patient of Dr. K. C. Haas, who while away from the city asked me to deliver her. Labor was normal, no ergotin, no pituitrin used. Small amount of chloroform administered to control expulsive efforts, and head held back during the severest pains. Baby delivered in L. O. A. position, without laceration. While examining the

baby, who was born with right talipes equinovarus, the mother issued a shriek and sank back into the pillows in shock. A terrific hemorrhage was taking place from vagina, which upon inspection was seen to come from a globular body lying within the vagina. This was recognized as an inverted uterus and immediate reposition attempted. The after birth became partially detached during taxis and was first removed completely before a second attempt at taxis was undertaken. By squeezing one segment of the uterine body upward and at the same time dilating the cup through the abdomen from above the uterus finally sprang back into its normal position. The hemorrhage immediately stopped upon replacement. Fundus controlled from above for one hour. This patient rallied from her shock in about two hours after proctoclysis of hot black coffee and adrenalin mx. Convalescence was interrupted by inability to nurse baby. No post operative rise in temperature, no abnormality of the lochia.

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Present Day Obstetrics

C. D. McKEOWN, M.D., Hutchinson.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Goldsmith once said, "One small head cannot carry all the new," and I say that one small head cannot carry all the old.

The enormous mortality, recognized and unrecognized of our present day obstetrics leads me to write this paper.

This subject is too broad to cover in any brief period, but permit me to mention a few of the things which should be done today instead of the things of yesterday which should not be done.

In proof of my contention of the need of more study along this line, let us review briefly the mortality tables. Ten thousand women die annually from direct causes of labor itself, while authorities state that twenty thousand is a none too high figure for direct and indirect causes combined. Of the late indirect causes the figures cannot be obtained. This table gives only a glimpse of the injuries compared to that seen when women in an unending stream, from every walk of life, journey yearly to our hospitals for relief

of childbirth injuries of a numberless variety.

The reported infant mortality of 3 to 5 per cent should wake us up to the idea that the child in utero is a living thing, usually strong, healthy, and unharmed, until the forces of labor bear down upon its little defenseless form, injuring, crippling, or even killing it. After looking at the mortality tables of the past cannot we well view our work with a little more seriousness, a little more thought, a little more energy, and a little more time spent in study? Because many animals die after bearing their species must the inexcusable yesterday's mortality of mothers and babies be tolerated? No! Yesterday's traditions and ignorance must be put away and we must get down to present day teachings. No longer can we say as of old "See what I have in my empty hand," for today we must fill the hand with learning or we are still following yesterday's teachings. We must be convinced that present day obstetrics amounts to more than tying the cord and making a casual visit on the first and third days before we can wake up to spending the deserved time with this work.

We have been poorly taught in our medical schools because our medical authorities have been slow to recognize the need of thorough training, and I grant you at the outset that proper credit is not given to the general practitioner by the obstetrician for much excellent work that is being done and for which he is very poorly paid. However, the general practitioner must as yet bear the greater burden of obstetrics.

Only a few of the present day procedures can be mentioned with little time for a proper discussion. Nor can knowledge alone suffice, for without proper hospital facilities and trained assistants the obstetrician must necessarily be forced to do an inferior grade of work. It takes a combination of facilities for the obstetrician to do the work that is now demanded of him. "Education of the masses" is also necessary before we can have our work put up to that level where the surgeon has placed his.

I will discuss the paper briefly under the following headings:

ADVICE TO MOTHERS

Our expectant mothers must be more generally taught the dangers that are liable to beset them, so that they will know the importance of engaging their physician as soon as they become pregnant, that they may have proper care and attention during their expectant period. They did not know that being under the care of their physician gives him a chance to anticipate dangers and forestall them. Simple rules of hygiene should be given which will prevent many of the annoying symptoms that arise in many pregnancies.

CONDUCT OF LABOR

Aseptic surgical technique should need no mention, yet many labors today are being conducted without regard to asepsis. I wish to mention especially here the necessity of properly shaving the patients and improper and too numerous internal or vaginal examinations. The surgeon does not tolerate operating through a field matted with hair which cannot be but a hotbed of infection.

Rectal examinations should be almost entirely substituted for the vaginal. The reason is obvious. Rectal examinations will reveal the level and descent of the presenting part through the pelvis, the part presenting, the position, also many anomalies. Especially is this true if these examinations are made the rule and not the exception. However, if the proper information is not gained by a rectal examination, the internal may be done, for, watchful waiting when doubtful conditions are present too often lead to disaster. However, to illustrate, I do not think it necessary to make an internal examination to distinguish an L. O. A. from an R. O. P., provided satisfactory progress is being made.

The condition of the babe in utero should be frequently watched so that indications for its immediate delivery might be known and, the conditions for delivery being favorable, the life might thus be saved. Especially should the heart tones be observed in case forceps are applied that the blades may not shut off the circulation by pressing upon the cord, hence unwittingly kill the baby while it is being delivered. This has been the cause of many deaths in the past, but with the advent of the head stethoscope this condition is

easily recognized by the operator himself and so avoided.

Routine examination and measurement of the pelvis of every primipara should be practiced before the patient goes into labor. A most inexcusable procedure is that of craniotomy because of great disproportion between the head and the pelvis, with the means we now have at hand for measuring these bony structures.

Episiotomies may well be mentioned here. This is an obstetric operation which may or may not be good procedure according to the ability one has of sewing the perineum. The lateral or medio-lateral incision is the one of present day choice. The object of the episiotomy is to save the ragged tearing and bruising of the perineum which lays it more liable to bacterial invasion. Deep lacerations are often found if only they are looked for, many thinking if there is no external skin tear the perineum is intact. This is a mistake for few primiparas are delivered without some deep lacerations. Then, too, with the episiotomy the rent is made in the direction of choice and thus away from the sphincter, while the tears are more likely to point toward the rectum. I believe there is a definite place in obstetrics for the episiotomy and I use it as a routine in all primiparas, breech, or, where forceps are applied. Dr. Potter advocates "ironing out" of the perineum but I believe much precious time will be saved by the procedure as a routine in these two cases. Many bad lacerations are caused by the delivery of the shoulders before the after-coming head. Other than these two steadfast rules I use the classical indications, as: disproportion between the babe and the vulva, delayed delivery by a hard resistant perineum, when rapid extraction is necessary because of the condition of the babe, etc. The excuse of insufficient assistants does not hold here for the operation and repair is very easily adapted to local anesthesia. The anesthesia also somewhat desensitizes the perineum, making the pains less felt to the mother. If the episiotomy is used I would advise the incision deep enough so there will be no tear, otherwise the object of the operation is defeated. Hemorrhage will seldom disturb, but blood is life and if it does

a small tampon will stop it until the head is delivered, after which it seldom bleeds and the sutures complete the operation.

The mortality of the third stage is double that in the first and second stages combined. This being true does it not stand us in hand to see if we cannot improve upon our method, and perhaps even find a simpler one for conducting this stage? Here of all places must we not hurry. This is truly a case of watchful waiting. Many are seen to grasp the uterus as soon as the baby is expelled and manipulate it continuously until the placenta is loosened and expelled. It breeds trouble, causing much more than normal hemorrhage and unnecessary discomfort to the parturient. Air may also be sucked into the uterus, giving a good opportunity for embolus formation. Pulling on the cord too is a meddlesome procedure and should not be done. I once saw a complete inversion of the uterus from this act. The method of choice is to gently grasp the uterus, making no pressure, and wait until there is spontaneous separation and it enters the vaginal vault. This usually will take about 15 to 25 minutes after which early expression may be safely done. This will I believe, give the minimum amount of complications of all kinds and especially that of hemorrhage. The use of pituitrin in the third stage is to be commended as it decreases hemorrhage and causes quick and spontaneous separation of the placenta, also a firm uterus. For severe hemorrhage from the placental site seldom will it be necessary to do more than administer hypodermic doses of sterile pituitrin and ergot in large enough doses to control it. Copious hemorrhage from the cervix should be controlled through a speculum with hemostats and ligation.

It might be mentioned here that there is seldom a cervix which escapes some laceration. Under the proper aseptic surroundings these cervical lacerations may be repaired immediately. It will save much gynecological grief later.

THE NEW BORN CHILD

As to the care of the child I wish to emphasize the encouragement of mothers to nurse their babies. The time of nursing should be at regular intervals and the baby should

have copious quantities of water daily, preferably from a bottle, because I believe they are more apt to get enough in this manner.

Infant "bleeders" are now very successfully and easily being treated with blood transfusion by the citrate method.

PATHOLOGY

Because of such a variety of circumstances arising in eclamptic patients it is hard to take up the treatment briefly. No hard and fast rules can be used as some in the past have tried to do. First, the prophylactic treatment. Too many times the physician sees the patient for the first time in the eclamptic seizure. I am firmly convinced that seen early many of the actual seizures can be anticipated and warded off. I lay the greatest stress upon a sudden rise of blood pressure, with albuminuria a close second.

For the convulsion Dührssen has advocated immediate delivery after the first convulsion, while Stroganoff has advocated the opposite extreme, that is, narcosis with morphine and chloral until the convulsions are controlled, and leave the case to natural termination. Here let me state that much morphine can be given the mother with very little effect upon the baby. Babies in the uterus seem to stand the morphine well. I think it best to stand exactly between these two extremes and terminate labor if the palliative measures fail or if the case grows rapidly worse with a rapidly rising pulse. In spite of the many drugs advocated in the past none controls the convulsions with any degree of security in any large series of cases.

PROLONGED PREGNANCY

It is not a good policy to let pregnancy continue an excessive period after the ninth month of gestation. This is a condition which occasionally brings us to grief on account of the disproportion between the passages and the passengers. Also where the pelvis is generally contracted it is good obstetrics to induce labor early enough that the baby will come through, it of course first reaching the point of viability.

I would like to emphasize the careful handling of pathological deliveries, using care not to injure unnecessarily the mother's soft parts or the baby. Certainly would I em-

phasize the diagnosis of position before the forceps are applied that the mechanism of labor may be obtained. The lack of this precaution in the past has caused many birth injuries and even dead babies. The bladder should be routinely emptied before the forceps are applied.

Puerperal fever, frequent and very often unrecognized, is the cause of much suffering, distress and ill health. Temperatures of the so-called milk fever type are usually pelvic infections. These are brought to the minimum by the observance of the strictest asepsis in the delivery.

In reviewing the prophylactic forceps of Dr. DeLee, and after seeing him do this operation a great many times, I would say that in his hands it is a very good and safe one. He prevents much suffering of the mother and many birth injuries to the babe. But I think as a rule for the general practitioner it is an operation to be condemned, for we may by its frequent use inflict more injuries than the normal labor would. Usually it is advisable to wait two hours after complete dilatation before any interference is attempted, depending of course upon indications and conditions.

The "Potter version," too, I believe to be a safe procedure in his hands, reducing his mortality and relieving the mothers and babes of enduring the second stage of labor. However, like the "prophylactic forceps" I think much harm would come of it if it were put into general practice. His careful and deliberate extraction is certainly to be commended in contradistinction to that of forceful, hurried, injurious deliveries.

CESAREAN SECTION

More indications for cesarean section are being allowed since without the vaginal examinations they may be more safely done. Even with better technique we should still be conservative with our indications, but today we are not asked to "save the mother" regardless of the expense to the baby, but, we must deliver a mother in good condition of a live baby.

CONCLUSION

I wish to leave this point with you, that the profession should seek a means of bringing

this branch of medicine up to a higher standard before public opinion catches up to us and demands it.

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Placenta Previa

E. A. REEVES, M.D., Kansas City, Kan.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The two conditions that give the physician practically all his uneasiness in obstetrical practice, are hemorrhage and infection; if these could be eliminated we would get along nicely and many fewer deaths than now would be attributed to the accidents of childbirth.

We know, now, how to prevent infection in nearly 100 per cent of our cases and I am sure the mortality from this condition is becoming smaller every year because we are being more careful, that is, most of us are, and we are caring for a larger per cent of our cases in hospitals under conditions where infection is almost unknown in the maternity departments.

But the obstetric hemorrhage we still have with us, and these on account of their suddenness, are the most alarming conditions that the obstetricians are called upon to treat.

Obstetrical hemorrhages are divided into antipartum and postpartum hemorrhages according as they occur, before or after delivery. Antipartum hemorrhages, barring accident or malignancy, are always caused by a separation of the placenta from its uterine attachment.

Antipartum hemorrhage has again been divided into two classes, namely; accidental and unavoidable hemorrhages. Accidental hemorrhage is caused by a premature detachment of a normally implanted placenta from whatever cause and does not come under the title of this paper. It is the latter subdivision of which I wish to speak tonight.

Unavoidable hemorrhages are practically all caused by one condition—placenta previa. Definition:—Placenta previa is that condition where the placenta is attached to the uterine wall wholly or in part within the zone of uterine dilatation during labor below the contraction ring or ring of Bandl. Thus nature's method of controlling hemorrhage by closing the uterine sinuses by the contraction of the muscle fibres of the uterus is defeated.

Authors recognize three forms of placenta previa which merge one into the other with no well defined lines of differentiation.

1. Placenta previa centralis, where the placenta covers the internal os.

2. Placenta previa lateralis, where the edge of the placental attachment just reaches the internal os.

3. Placenta previa marginalis, where the placental attachment just reaches below Bandl's ring. The danger and severity of the hemorrhage is in the order named.

Cause and frequency—The frequency of this condition differs widely with different writers, and varies from 1 in 300 to 1 in 1,000 maternity cases, and probably differs greatly in different series of cases, but is frequent enough that almost every physician of several years' practice has one or more cases which he is not very likely to forget.

Placenta previa centralis is probably not more than one-fifth of all the cases. Etiology—the principal predisposing causes are chronic endometritis, subinvolution, multiple pregnancies, and children in rapid succession which tends to cause subinvolution and scar tissue in the uterine wall which may be the reason for the ovum slipping down near the cervix before attaching itself to the wall of the uterus. The tendency to placenta previa seems to increase with age and multiparity, yet in three recent cases of mine, one was a primipara, one a second para, and the third had not been pregnant for over ten years. The acting causes are, of course, the insertion of the placenta in the lower uterine segment, and the development of placenta tissue in the decidua reflexa.

Symptoms—The only constant symptom of placenta previa is uterine hemorrhage usually coming on after the sixth month of gestation.

Dee Lee says, "A causeless, painless hemorrhage in the third trimester of pregnancy is almost pathognomonic of placenta previa."

The first hemorrhage is usually slight but may vary from a few drops to a profuse flow that may threaten or even destroy the life of the patient.

The physician must not be misled because the hemorrhage ceases as there is no recovery, and others and usually more severe hemor-

rhages are inevitable, there may be no profuse flow yet the continuous loss of blood in small quantities causes a severe type of anemia that makes the patient a poor risk when labor comes on.

The origin of the hemorrhage is fourfold according to De Lee.

First, from the placental site, most usual.

Second, from the intervillous space in the placenta.

Third, from the circular sinus of the placenta.

Fourth, from villa, very rare and of foetal origin.

The course of pregnancy and labor are greatly influenced by this condition. Abortion or miscarriage often results and may be overlooked unless the hemorrhage is severe. It has been my misfortune to see three of these cases. One woman lost her life, another was saved by a very small margin, and in the third case, the placenta came first and was followed immediately by a four or five months' foetus without rupturing the amniotic sac.

Premature labor is frequent, increasing greatly the foetal mortality. Labor is often interfered with as the low implantation of the bulky placenta causes abnormalities in presentation, such as breech, transverse, shoulders, delayed engagement of the presenting part, etc., weak uterine contractions coupled with the inevitable hemorrhages, makes this probably the most formidable condition the obstetrician has to meet.

Another condition that sometimes arises is air embolism from the exposure of the uterine sinuses or the rupture of the soft spongy placental site in the lower uterine segment in attempted version or other operative procedure.

Placenta previa also greatly complicates the puerperium as infections are more frequent from the necessary manipulations and the lowered resistance of the patient from loss of blood. Bits of remaining placenta cause subinvolutions and predisposes postpartum hemorrhage and sapremia. All these are against the patient and render the prognosis less favorable.

Many dangers are ahead for the child. Prematurely the child may die; the partially at-

tached placenta may seriously interfere with the foetal blood supply; injuries from the use of necessary force to control the hemorrhage in mother; all greatly reduce the chances of the child living.

Diagnosis—As stated before a painless, causeless uterine hemorrhage after the sixth month of pregnancy is almost surely from the placenta previa, but there are other confirmatory symptoms such as uterine bruit low down in the pelvis, the feeling of the boggy mass in the pelvis in front of the presenting part or the placental tissues may be felt through the open os. My patient in the hospital when this paper was written presented distinctly all these confirmatory symptoms.

Placenta previa must be differentiated from other causes of hemorrhage, as ruptured uterus, ectopic pregnancy, and abruptio placenta, which does not usually offer any serious difficulties.

Prognosis—In the report of 2,153 cases in De Lee's book there were 166 deaths or 7.7 per cent. In some private reports the mortality ranges from 4 to 20 per cent and the infant mortality is well above 50 per cent.

These statistics require careful study to be of any value as to whether the mother has proper early care, was allowed to become exsanguinated before entering the hospital, or was infected by many careless examinations, the degree of the previa and the treatment given.

Most of the deaths are caused by hemorrhage, sepsis, rupture of the uterus, and air embolism, named in the order of their frequency. The woman with placenta previa ought not to die from hemorrhage at labor unless she has been allowed to waste her blood by many small hemorrhages or some injury inflicted by rapid delivery, or effort to control the hemorrhage before delivery. Sepsis is invited by the closeness of the placental site to the field of operation. Rupture of the uterus is usually caused by too much force at the time of delivery and the friability of the lower uterine segment from the previa. Air embolism is rare, but does occur occasionally and we are powerless to prevent or treat successfully this serious accident.

Treatment—De Lee lays down six emphatic

axioms for the treatment of this dangerous condition.

First, a woman with placenta previa should not die except from air embolism, hemorrhage diathesis, or spontaneous rupture of the uterus.

Second, every woman with placenta previa should be sent to a well equipped hospital and kept there until after delivery, no matter how long it may be.

Third, with two exceptions, every pregnancy with placenta previa should be terminated as soon as the diagnosis is made.

(a) When the bleeding is very slight.

(b) When the child is very near the time of viability or near the thirty-second week of gestation.

In the interest of the child where both of these conditions exist he would wait a while, provided the woman will be in bed in the hospital and stay there. Dr. Jaggard says there is no expectant treatment of placenta previa.

Fourth, the child, if need be, must be sacrificed for the mother, the attendant should choose the procedure he is best able to carry out and be prepared to meet any emergency that may arise.

Fifth, when labor once starts the physician must stay with his patient until she is delivered and out of danger.

Sixth, the woman must not be allowed to lose one drop of blood that can be saved. The loss of a small amount during the first stage may cost her her life later; the bleeding must be controlled at all hazards.

The treatment divides itself into two parts depending upon the time of pregnancy and the amount of hemorrhage.

First, during pregnancy; the patient must be put to bed in the hospital and have everything in readiness for an emergency; assistants, nurses, instruments, sterile linen, packs, etc. If hemorrhage is profuse or persistent it is dangerous to temporize and the procedure will depend upon conditions. If a primipara with rigid undilated cervix, abdominal section may be the best.

If a multipara, and most of them are, with soft dilatable cervix the natural channels will probably be best.

Second, during labor we have four objects

to accomplish: (1) first and most urgent, to control the hemorrhage; (2) to empty the uterus; (3) to insure hemostasis or protect the woman against further loss of blood; (4) to combat the existing anemia.

The best method of controlling hemorrhage depends upon the location of the previa. If marginal, and the uterine contractions good, we may not need to interfere as the presenting part is forced into the pelvis controlling bleeding until delivery when the uterus will contract and close the sinuses and stop the loss of blood. If lateral, the choice is to insert a bag into the cervix after rupturing the membranes, being careful to place the bag over the placenta, otherwise it does harm rather than good, which controls hemorrhage by pressure over the site of the previa during the dilatation, then when the contraction expels the bag, deliver by version or forceps as seems best at the time without delay.

In central implantations, we have a more difficult condition to meet and it may be necessary to rupture through the placenta, do a podalic version and use the body of the child as a tampon and then let the woman deliver herself. Great care must be taken not to rupture the uterus, and the child will probably be sacrificed. These patients are prone to post-partum hemorrhages and it may be necessary to pack the uterus to secure hemostasis. To combat the anemia it is necessary to save blood at every step, remembering that a sudden flow may be enough to kill the patient, and to replace the blood lost with saline hypodermoclysis or intervenous, the latter is probably better if much blood has been lost as it is quicker and surer and we cannot afford to temporize or take any chances.

There are other methods of treatment but it seems to me that the one outlined here covers the best thought on this very interesting and dangerous condition.

CASE REPORTS

1. Mrs. W., age 27, 2nd para, first baby born blue, died. Wassermann negative; blood and urine negative; entered Bethany Hospital at about eight months. There being little hemorrhage, we decided to put her to bed, watch her closely and wait. She had one slight hemorrhage between then and time for delivery.

When labor came November 16th, 1920, and hemorrhage started she was moved immediately to the delivery room and the bag inserted without anesthesia. Presentation L.O.A. She remained in the delivery room and everything ready for immediate delivery. The bag was expelled in about two hours, followed closely by the head. Forceps were put on and the child delivered at once. Second stage followed by $\frac{1}{2}$ cc pituitrin and third stage by 2 cc ergot. Mother and baby both left delivery room in good condition. Uninterrupted recovery. Mother left hospital in two weeks.

2. Mrs. S., age 31, married, family and personal history negative; miscarriage two years ago, cause unknown, menstruated normally in August, missed in September, slight nausea for four or five weeks; began to flow about January 8th, 1921, which though not severe, continued until January 16th, 1921, when I saw her in her home. Upon examination I found the typical signs of placenta previa and advised emptying the uterus. She was moved to Bethany Hospital and on January 18th a bag was inserted through the relaxed cervix after rupture of the membrane, and five minims of pituitrin given. Pains started almost at once and the bag was expelled in about three hours followed immediately by the foetus and placenta. No hemorrhage or sepsis. Patient made uninterrupted recovery. The foetus, of course, was sacrificed.

3. Mrs. G., age 40, five para, youngest child ten years old, no abortions nor miscarriages. According to her statement should have been confined about February 15th, 1921. Personal and family history negative. This patient received no prenatal care as she did not tell her condition until about one week before she expected to be confined. I was called to her home March 11th, 1921, and found her in a pool of blood; some pain, a transverse presentation, and a marginal placenta previa. She was moved at once to Bethany Hospital and a large bag inserted and the patient put back to bed, contrary to custom, but because I thought I could deliver another case before her; while we were busy in the delivery room, the bag was expelled and considerable blood was lost before she could be prepared. A version was done and the child resuscitated

but lived only a few hours. The mother made a nice recovery and left the hospital in about two weeks.

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The Treatment of Septic Incomplete Abortion

WARREN F. BERNSTORF, M.D., Pratt.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The problem of treatment of septic incomplete abortion has been one of the most debated questions in the field of pathological obstetrics. The profession as far back as the records show have been divided roughly into two divisions, i. e.—First, those who advise a non-operative expectant care, and second, those who insist on immediate operation.

The present day treatment of the acute appendix shows a marked improvement in method, in so far as the general practitioner is concerned, and the immediate operative advice given, has resulted in fewer pus appendices, and consequently a lowered mortality to say nothing of an altered morbidity. But aside from the specialist in obstetrics we cannot say that the treatment of septic incomplete abortion has made the expected progress, in keeping with the advance in the other lines of medicine, especially, in so far as the general practitioner is concerned, who is so many times called upon to handle these cases.

The blame for the practice of interference by curettage or artificial means should not be wholly placed upon the physician in charge, however. There are other factors beside his own present day spirit of "doing something" which have a bearing on the method of handling the case. Prominent among these is the attitude of the patient and friends who so often insist that the uterus be emptied, never stopping to listen to the policy of conservatism.

The present study was undertaken in an attempt to justify the merits of the two methods of treatment, and is based upon a personal review of the cases which are to be found among the records of the Cook County Hospital between the years of 1913-19 inclusive. We shall not try to report on the number of case histories examined but wish

to present some results as shown by a careful summary of 200 consecutive cases which were selected in the order of their appearance in the files.

Our idea of septic abortion embodies those cases in which there was a temperature of 100 degrees or over which could not be accounted for as being other than uterine in origin. For convenience these are divided into groups number 1 and number 11. The treatment in group number 1 consisted in emptying the uterus during the febrile period. Group number 2 consists of cases in which there was no local treatment. The results can be seen at a glance by the following figures:

	Cu- retted.	No local treatment.
Number of cases.	100	100
Total days of fever.	810	350
Average days of fever.	8.10	3.50
Total days in hospital.	1328	848
Average days in hospital.	13.28	8.48
Complications.	19	4
Deaths.	3	1
Percentage mortality.	3	1

COMPLICATIONS

Type—	No.
Sepsis.	9
Parametritis.	3
Phlebitis.	2
Pelvic cellulitis.	1
Endometritis.	1
Peritonitis.	1
Salpingitis.	1
Hemorrhage.	1
Total.	19

No Local Treatment

Type—	No.
Pelvic abscess.	1
Sepsis and parametritis.	1
Salpingitis.	1
Cellulitis of leg.	1
Total.	4

By study of the above tables it will be seen at a glance that the preponderance of evidence is strongly in favor of the group under expectant treatment, in so far as the total days of fever is concerned, the average days of fever, total days in hospital, which is in itself quite an item in an economical way, as well as a very striking difference when we come to the total number of deaths and the various complications.

This we think clearly proves beyond all question the value of conservative treatment, inasmuch as results are after all our criteria

of treatment and the final judge in the question of therapy.

Profiting by our review of these cases we made it a fixed practice not to curette cases or empty the uterus in any way until the patient had been five days temperature free, the patient by that time being considered as non-septic in so far as time had been given for bodily reaction both locally and generally. The only exception to the above rule was in cases which showed persistent dangerous uterine hemorrhage; this class of cases being subjected to light emergency curettage.

The second phase of a study of this kind naturally presents itself in the nature of a question as follows: "What is to be the line of treatment, conservative or operative in the non-septic case," and second, "should all incompletes be curetted before final examination and discharge?"

The line of study on the above question was as follows: Cases were alternately assigned to the operative and non-operative lists as soon as the diagnosis of incompleteness was established. Cases on the operative list were curetted when there was evidence of retention of secundines. If free from symptoms cases on the operative list were not curetted and though treated expectantly were retained on the list.

Cases on the expectant list were treated non-operatively unless hemorrhage became dangerous, when they were curetted. Neither of the cases were transferred to the other list. The parity check showed that 31.14 per cent were para nought or one. The length of gestation was found to be greatest between the second and fourth month, a total of 63.1 per cent occurring during that time. Previous abortions were admitted in 35 per cent of the cases. The etiology of 68 cases was given as follows: 51.47 per cent spontaneous, 32.35 per cent self-induced or criminal, and 16.7 as associated with other pathology or accidental. The induced or criminal group included, instrumental, catheter, lead pencils, silver wire, tents, slippery elm, vaginal douches, quinine, tansy tea and others.

The percentage of self-induced and criminal is high and worthy of attention since it is this class of cases which develops the most

severe complications outside the uterus and consequently beyond all hope of reaching by uterine operative treatment.

The results also show the incompletes to be about three times the total of the complete, 76.22 per cent as against 23.77 per cent respectively. Of the 67 cases on the expectant list 27 or 40.29 per cent had to be curetted eventually because of bleeding, persistent lochia rubra or subinvolution. Five cases not curetted because of septic histories returned later because of bleeding and were then curetted and then did not return. One of these cases was allowed to go home at her own request before curettement and then returned after a hemorrhage and with a red count of 950,000.

The complications on both lists as a result of the attention given in the hospital was one broncho-pneumonia four days after curettement with recovery, and a case also on the expectant list curetted for bleeding who returned with a parametritis. On the active list two cases were lost, one dying about sixteen hours after admission, being already in a moribund state on admission and the other of general peritonitis. Neither were curetted while in the hospital.

A summary of the work shows: The first series of 200 cases, 100 of which were treated expectantly because of the sepsis present until non-septic showed strikingly that the cases with no local treatment had fewer days of fever, shorter stay in the hospital, fewer complications and a lower mortality.

It was found that an interval of five days with no temperature was advisable before curettement of septic cases; that nine of the cases on the active list did not have to be curetted, while 27 on the expectant list had to finally be curetted; that five septic cases that were discharged not curetted had to be curetted due to their return with resumption of hemorrhage; that the complications were very trifling.

From the combined study as outlined above we are led to the following conclusions.

CONCLUSIONS

Cases of septic abortion should have no operative interference until they are at least

five days fever free, the one exception being hemorrhage that threatens life.

This time interval is sufficient to convert the case into a non-septic one with resulting fewer days of fever, shorter stay in the hospital, fewer complications and a lower mortality.

So-called non-septic cases should be subjected to curettement as a routine for 40 per cent of such cases expectantly treated have to be curetted; curettage insures an empty uterus and prevents subsequent bleeding; the stay in the hospital is shortened; the procedure is relatively harmless in comparison to the good it accomplishes.

I wish to acknowledge my indebtedness to Dr. David S. Hillis, with whom I worked and to whom I am indebted for much of the material of this paper.

—R—

A Tribute to Doctor Weston Howard McConnell

F. M. WILEY, M.D., Fredonia.

Read at September Meeting of Wilson County Medical Society.

Weston Howard McConnell was born at Francisco, Gibson County, Indiana, December 17, 1860, and died after a long illness at Lafontaine, Kansas, August 18, 1921, at the age of sixty years.

He received his common school education at Francisco, Indiana, and later read medicine with Dr. D. P. Reavis, his uncle. He was graduated from Indiana Medical College, Indianapolis in 1882, and in the Fall of that year located at Lafontaine, where he practiced his profession until his death, a period of 39 years.

When Doctor McConnell swung his sign to the Kansas zephyrs in Lafontaine, the village was three years old and small for its age. He soon became a dominant figure in the community life and as the years have flown, and the old generation of pioneers has passed and been succeeded by the present progressive and law-respecting population, his influence has increased and extended, and his fine professional qualifications have constantly developed by the experience of years, and studious habits.

In his practice he was unusually successful, possessing, as he did in a high degree, many of the qualities which are essential to success. He was studious, devoted, untiring, self-sacrificing. He was prompt, faithful and brave; he was generous, sympathetic, gentle and kind. It takes all these qualities to make a good and successful doctor, and none of them could be omitted from a truthful sketch of the character of Dr. McConnell. He modestly chose to abide in a little obscure hamlet, which he outgrew years ago—a fact he never suspected—and he consecrated his life to the welfare of his neighbors. He gave his best effort to each case he had in hand. He very seldom pronounced a case hopeless, and as a result of his fine knowledge of pathology and therapeutics there are more octogenarians in the community he served than in any other of which I know.

The citizens of Lafontaine early learned to have faith in his ability and honesty, then they learned to love him as I think no Doctor has been loved by his people since good old Doctor MacLure of Drumtochty. He was never too weary to respond to the call of duty or of suffering, and especially in the earlier days, he frequently, and quite as a matter of course, took such risks of life as meet high rewards in other fields. "The werra look o'him wes victory." And his gentle touch and tones brought rest to the weary and hope to the discouraged. In personal appearance nature had been kind to him, and as he ripened in years his gentleness and purity of life gave him an unusually winning and benignant presence.

Doctor McConnell's attitude toward his professional brethren was invariably ethical and gracious. He was conscious of his limitations, rather fearful of treading on unfamiliar ground, and friendly to consultations. In consultations he was fair, and always faithful in carrying out the course agreed upon. To him human life was a sacred thing, and he never trifled with it.

He was of rather serious mein, and rarely allowed himself any indulgence in social affairs or recreation, never in fact in his many years of unselfish devotion to the healing art taking a vacation. He was a member of the Wilson County Medical Society, The Kansas

Medical Society, and The American Medical Association, and faithfully discharged his financial obligations to each of them, yet there are members of this society who never met him. It was simply impossible to lure him from his post of duty. His attitude toward the lodges and the Church was the same. He was in full sympathy with them all and gave them his support, but to him his obligations to humanity and to God were met by a faithful discharge of his duty as an ever ready helper in time of trouble, and from this duty he never swerved. Doctor McConnell spent his spare time in reading; he bought the best books and made them his constant companions. He was not boastful, but deferred to the opinions of others. When he expressed himself he spoke modestly and clearly, and convincingly and revealed familiarity with the latest thought in medical literature. His life was a fine demonstration of the principles of the Man of Galilee, for it was a life of unselfish service. In his home life he was courteous and interesting and devoted. Aided by his faithful wife, he practiced in his home the old time gracious hospitality which in these later days has become so rare even in rural communities. And his hospitality and magnificent service has been appreciated by the community in whose life he has been such a potent and beneficent factor in a worthy and beautiful spirit. Through his long illness there was apprehension in the homes of Lafontaine, and words of sympathy and love pervaded the air like a perfume.

For weeks a procession of anxious friends visited the sufferer, most of whom had been the objects of his tender and skillful ministrations. They came with words of cheer and encouragement, and retired with heavy hearts, realizing that at each visit they found signs of life ebbing a little lower, and that the man who so often won the battle against death for others, was making a losing fight for his own life. And the day came when they gathered from far and near, on the lawn, under the noble trees that had been planted, and for many years nurtured by the Doctor's hands. And the sadness of that hour was softened by the memories of the noble life that had come to an end; the life that had been an open

book to them all; the life grand in its success, as it was sublime in its modesty.

You have read Ian Maclaren's "A Doctor of the Old School," and will recognize in the character of Doctor McConnell much to remind you of that masterpiece. Though the fine old Scotchman was a man of rough exterior, his rugged and sometimes harsh bearing only thinly veiled a tender and loving heart, much as his softer and gentler feeling were concealed by our brother beneath the quiet reserve of his manner.

Drumtochty was the parish served by the sturdy Doctor MacLure, and in its love for, and its faithfulness to its benefactor, it was a perfect prototype of Lafontaine. He gave them all his mighty strength for forty years, and no one ever heard him complain, and he never plead illness to any messenger by night or day. A cynic once said, "What scunnered me wes the wy the bairnes were ta'en in wi' him. Man, a've seen him tak a wee laddie on his knee that his ain mither cudna quiet, an' lilt 'Sing a song o' sixpence 'til the bit mannie would be laughlin' like a good ain, an' pooin' the doctor's beard.'"

Drumtochty was not observant in the matter of health, but they had grown sensitive about Doctor MacLure, and remarked in the kirkyard all summer that he was failing. As autumn passed into winter, the glen noticed that the doctor's hair had turned gray and that his manner had lost all its roughness. A feeling of secret gratitude filled their hearts, and they united in a conspiracy of attention. Annie Mitchell knitted a huge comforter in red and white, which the doctor wore in misery one whole day, out of respect for Annie, and then hung it in his sitting room as a wall ornament. MacLure had been slowly taking in the situation, and at last one night he unburdened himself to Jamie.

"What ails the fouk, think ye? for they're aye lecturin' me noo tae tak care o' the weet, and tae wrap masel up, an' there's na' a week but they're sendin' bit presents tae the house, till a'm fair ashamed."

His decline was rapid, and one day he sent for his life-long friend, Drumsheigh, and broke the news to him. After some unavailing effort to turn his friend's conversation to

other channels, Drumsheigh exclaimed, "What 'ill become o's when ye're no here tae gie a hand in time o' need? We'll tak ill wi' a stranger that disna ken ane o's frae anither."

"It's a' for the best, Patrick, an' ye'll see that in a while. Avve kent fine that ma day wes ower, an' that ye sud hae a younger man. A' did what a' end tae keep up wi' the new medicine, but a' had little time for readin', and nane for traivellin. A'm the last o' the auld schule, an' a ken as weel as anybody thet a wesna sae dainty an' fine mannered as the town doctors. Ye took me as a' wes, an' nobody ever cuist up tae me that a' wes a plain man. Na, na; ye've been rael kind an' conseederate a' thae years."

"Weelum, ginye cairry on suc nonsense ony langer," interrupted Drumsheigh huskiy, "a'll leave the hoose; a' canna stand it." Dr. MacLure was buried during the great snow storm which is still spoken of, and will remain the standard of snow-fall in Drumtochty for the century. The sturdy highlanders came for miles, wearing unaccustomed black coats, and tall hats, and plowing their way through the mighty drifts of snow, and surrounded the grave with bare head during the brief service.

Mr. Davidson, the minister, was asked to suggest a text to be inscribed on the cross which the Lord of the Manor promised to erect. "We thank you, Lord Kilspendie," said the doctor, "for your presence with us in our sorrow and your tribute to the memory of William MacLure, and I choose this for his text: 'Greater love hath no man than this, that a man lay down his life for his friends.'"

Milton was at that time held in the bonds of a very bitter theology, and he objected to this unqualified eulogium. "No doubt Dr. MacLure hed money naturel virtues, an' he did his wark weel, but it was a peety di didna mak mair porfession o' religion."

"When William MacLure appears before the Judge, Milton," said Lachlan Campbell, "He will not be asking him about his professions, for the doctors judgment hass been ready long ago; and it is a good judgment, and you and I will be happy men if we get the like of it. It is written in the gospel, but it is William MacLure that will not be expecting it."

"What is it, Lachlan?" asked Jamie Soutar eagerly.

The old man, now very feeble, stood in the middle of the road, and his face, one so hard, was softened into a winsome tenderness.

"Come, ye Blesses of My Father . . . I was sick and ye visited me."

Doctor McConnell's life was a life of toil and self-denial, but he was rewarded by the grateful love of an entire community. His membership was an honor to this society; his upright life is an inspiration to us, and we count him worthy of the text provided for the good old doctor, William MacLure, though "it is W. H. McConnell that will not be expecting it."

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BELL MEMORIAL HOSPITAL CLINICS

Clinic of Dr. A. L. Skoog

Department of Nervous and Mental Diseases

JUVENILE TABES

The patient which we wish to present belongs to a group having a comparatively small number of reported cases. Most cases on record deal with the classical syndrome, having all or nearly all of the important symptoms. However, I believe that the group can be greatly enlarged if we incorporate in this metatype of syphilis, cases with only some or a few of the diagnostic manifestations.

Most of the text books discussing juvenile tabes devote no serious attention to the subject or dismiss it with a few lines. Mott in his work on Syphilis of the Central Nervous System quotes Laisser as reporting twenty-one cases of juvenile tabes in which group seventeen were found to have a clear history of syphilis in one or both parents, two with probable histories, and two being uncertain. We can anticipate that nearly every case of juvenile tabes should have a history of syphilis in one or both of the parents.

This patient entered Bell Memorial Hospital on my service July 21, 1919, and was discharged September 24, 1919. He re-entered the Hospital on March 14, 1921, this time on the surgical service. He had on each of the two occasions, the complaint of difficulty of walking and ulcers of the feet.

The patient is now twenty years of age, white, single, high school student.

He states that he knows nothing about his parents although he has made some effort to obtain information along this line. Parentage was probably illegitimate. Shortly after his birth he was adopted by a family in Kansas, where he was given a comfortable farm home, good care and an education. In reviewing his past history we find that he has had very little serious sickness, but states that he has never been strong. He did not walk alone until two years old, and has always had an uncertain gait. As long as he can remember he has had much greater difficulty in walking in the dark. Never has he been able to do anything but light work on the farm. When he attempts to do heavy work in the field, there is often "a breaking out" on his great toes. Open sores of the right great toe, and twice on the left, have appeared on six occasions. He states that he thinks he had "eczema" when about eight years of age.

When the patient first entered the Hospital, being eighteen years of age, he complained of trouble with his feet, especially ulcers which had existed for eight or ten years. His left foot had previously been lanced on several occasions. He had had some pain in the feet but this has never been sufficiently severe to keep him awake. About Christmas time, 1920, he had a slight fall at which time he bruised his right heel. Ulcers followed and gradually became worse until his second entrance into the Hospital. They were surrounded by thick, horny skin and were narrow and deep in the center, apparently reaching the bone. They were not painful until healing had begun. For a few years he had "spells" which came on gradually, and for short periods would leave him weak. These have occurred three to five times per day. They seldom occur at night. Chewing gum or worrying will tend to bring on a "spell." He never falls but wants to lie down. The muscles relax, no tonic or clonic movements appearing at any stage. He states that he seldom has headaches, and when present are not severe. He sleeps very well. He often worries about his school work and thinks that he is excessively conscious. He is constipated. Dizzy spells often appear after the

mals. No nocturia, has "night blindness," stumbles in the dark and staggers when his eyes are closed or covered as when washing his face. Lightning pains, in the legs especially, but also in many other parts of the body, have annoyed him for ten years or more.

Examination—In a general way we see a patient undernourished, pale, and having sluggish skin functions. The shape of the head is suggestive of some innate defect such as congenital lues.

This patient quite evidently presents a normal mental state. All of the cranial nerves excepting the second, third, fourth and sixth have fair functions. The pupils are regular, equal and dilated. An ophthalmoscopic view shows discs with no cupping, blurred, having much exudate, and arteries small and sclerotic. There is a suggestion of a beginning optic atrophy. Right and left eye grounds present about the same state. The light reflex is almost absent. Accommodation is present but impaired. There is no evidence to gross tests of any extrinsic ocular muscle imbalance.

There are no motor palsies. It is rather difficult to get a satisfactory view of his feet on account of ulcers on his right foot, same being bandaged. There is present a mild Romberg. Some impairment of co-ordination in the upper extremities is evident. The deep reflexes in the upper extremities are sluggish. The gluteal, patellar, Achilles reflexes are absent. The abdominal reflexes are feeble. The Babinski and Oppenheim are negative.

There is present a moderate degree of analgesia and anesthesia in the lower extremities. This applies to all forms. Especially is there a marked diminution of deep muscle sense in the lower extremities. Vibration tests in the lower extremities show poor bone conduction. A mild ulnar anesthesia, right and left, is present. The toe nails are keratotic. No muscular atrophies are observed.

There are no evidences of Hutchinsonian teeth. There are no crowns or fillings. Much pyorrhea is present. The thyroid seems somewhat enlarged. No definite adenopathies are present. Scaphoid scapulae of a mild degree are observed. The chest, abdomen, genitalia and rectum are negative. No cardiac disease has been noted. The blood pressure is normal.

The urinary findings have always been normal. A blood count at the time of his last entrance to the Hospital gave a red cell count of three million eight hundred thousand, hemoglobin eighty per cent, leucocytes eight thousand, polymorphonuclear sixty per cent, large mononuclear four, large lymphocytes thirteen, and small lymphocytes twenty-three. The blood Wassermann was negative. Three Wassermans on the spinal fluid were negative. There was no pleocytosis. The globulin content was increased. The pressure was increased. A second lumbar puncture recently made has revealed a spinal fluid under greatly increased pressure, a lymphocyte count of two and two-thirds and a positive globulin. There was present in the spinal fluid much amorphous material. The Goldsol test and Wassermann were negative.

An abstract of the surgical reports on this patient, this work having been performed by Drs. Sudler and Orr of the surgical department, show that the ulcers of the left and right feet were treated and cured on the first occasion. During the second and last period in the Hospital the surgeons have had made x-ray pictures of the right foot. This shows what appears to be an old fracture of the os calcis with necrosis of this bone. Under gas oxygen anesthesia a small sequestrum and several small pieces of dead bone were removed from the os calcis. There was evidently osteomyelitis of this bone. This has been slow in repairing but is now practically healed. There was a small amount of purulent discharge from this ulcer.

The progress of this patient has shown a definite improvement. This is true for the neurological problems. The improvement for the surgical affairs has been more marked. At the present time he walks about much better but still has some tenderness in the feet.

I have no hesitation in declaring this patient as suffering from juvenile tabes. Perhaps some might wish to designate the disease as the infantile type of tabes. I believe there is very little difference which one of the two words is employed to designate the type. Very often it is merely a matter of the period or time when you see the patient. The symptoms in either one may not have the full develop-

ment as seen in the adult type of locomotor ataxia. Especially in the infantile type do the symptoms diverge from the classical textbook description. I do believe that in the patient just presented the diagnosis of the infantile type of tabes could have been made eight to fifteen years ago. There is sufficient data in the subjective history to suggest many well defined objective signs for tabes as present many years earlier. In the differential diagnosis we may consider Friedreich's ataxia, syringomyelia, multiple sclerosis, and rarer chronic tract degenerative states, isolated or combined. None of the latter need be seriously considered here. The age of the onset, objective findings and course are decidedly against multiple sclerosis. The involvement of levels above the pons, absence of certain symptoms and the course eliminate syringomyelia. In Friedreich's ataxia we only need consider seriously the Marie type. In the Marie type we may find eye symptoms as presented in this case. There are no skeletal deformities as found in the Marie type. Trophic disturbance as seen in this patient and the course will lead us away from considering seriously Friedreich's ataxia.

Considering a pathological view of this case, we are particularly attracted to the spinal cord. The ataxia, lightning pains and trophic disturbances concentrate the lesions especially in the posterior columns of the cord, roots, meninges at the point of exit of roots from the spinal cord, and the intervertebral ganglia, particularly in the lumbo-sacral portion of the cord. The nature of these changes is slow, degenerative. The spinal fluid analyses on each occasion indicate very little in the way of an active inflammatory process. The eye findings with the suspiciously beginning optic atrophy leads us to suspect sluggish degenerative changes in the optic pathways. It is really the tract degenerations in the spinal cord and the brain which differentiate the metabolic disorders from the more active secondary and tertiary types of syphilis. This is true for both the acquired and the congenital type but more especially for the former. The trophic disturbances as seen in this patient, which have existed for a number of years, are frequently observed in tabes. The

chronic trophic ulcers and bone involvement may be ascribed to two pathological factors. Spirochaeta and tissue reactions to the organisms may be found locally. Secondly, the degenerations in the spinal cord and intervertebral ganglia lower very much the neural tonus in the peripheral tissues supplied by the respective neural segments. The Charcot joints as observed in tabes and several other metaluetic disorders have a similar pathology.

The etiology in this case is undoubtedly syphilis. The laboratory findings here are not so conclusive. However, it must be borne in mind that in the metatype of syphilis, and especially in the congenital cases, the percentage of positive laboratory findings are lower than in some other types. It is more difficult to locate the organisms in the neural tissues. Noguchi and others have shown us that there are twenty or more varieties of *treponema pallidum*. It is possible in cases of this nature that the organism belongs to a somewhat different type, and found in more or less better protected and isolated areas in the central nervous system. This renders them less vulnerable to attack by chemical agents such as arsenical preparations, mercury and iodides. The origin of the trouble in this boy is certainly congenital. The only other point of special interest to us now would be to know whether one or both of the parents had syphilis or not. I believe that one or both had syphilis, and possibly belonging to the metatype of syphilis. The possibility of an optic atrophy going to complete blindness should be seriously considered in such cases. Likewise there is a possibility of brain changes occurring at some future date which would permit the diagnosis of tabo-paresis.

However, despite the uncertain prognosis in this patient, appropriate treatment should not be neglected. It is already shown that by two periods of treatment in the Hospital, trophic ulcers have been made to heal. This has been accomplished by the combined antisyphilitic and surgical therapy. Six doses of arsphenamin, ranging from 0.3 to 0.4 grams. intravenously, were given in the first series, and thirteen doses during the second period in the Hospital. Courses of mercury and iodid also have been used. The patient will be discharged

very soon to his home where appropriate treatment, especially mercurial courses and iodid, may be given from time to time. Proper protection and rest for the lower extremities should not be neglected for a long time.

R

Although the essential features of the etiology of "hay fever" are believed to be understood, the treatment is still largely of the hit or miss type. Preparations of mixed pollens are distributed by commercial houses and used by physicians in the hope that some ingredient will prove to be potent. Several facts seem at length to be so well established that they may serve almost as axioms in the clinic of hay fever. One of these is that although the offending pollens vary in different parts of the world as well as at different seasons, the number chiefly responsible for the attack in any single locality is comparatively small. Hence it becomes the duty of the physician to familiarize himself with the offending pollens in his locality or the locality whence his patients hail. Fortunately I. C. Walker has reported on the pollens which are responsible for "hay fever" in the New England states; G. Selfridge on those in California; K. K. Koessler for Illinois, and W. Scheppegegrell for the Southern states. It is important that for each case of "hay fever" the offending pollen should be determined by skin tests and also that the treatment should be preseasonal (although treatment during the season may sometimes benefit.) In extenuation of the frequent failure to relieve patients, it is to be noted that certain persons have symptoms ranging from sneezing to asthmatic attacks due to the odors of flowers that have no pollen as well as the presence of nonspecific factors in the respired air. Obviously, pollen extracts are of no avail in such cases (Jour. A. M. A., Sept. 3).

A man can live many days without food; a few days without water, a few minutes only without air.

This gives the cue to nature's hygienic requirement in blood asepsis. Keep the blood aseptic by aerating it in deep breathing. Regular, even, deep inhalation strengthens and develops the chest muscles, the diaphragm, the belly muscles and corrects faulty posture.

THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D. - Editor

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Emergency Business

Public opinion may compel physicians to give gratuitous services to the poor, but the law does not. Public opinion does not compel physicians to give gratuitous services to wealthy corporations, but the law does—at least indirectly.

Compensation laws are wisely, or unwisely, intended to place upon employers the burden of accidents to employees. The employer shifts the burden to some indemnity company which undertakes for a small fee to settle all claims against the insured employer. Then the indemnity company, sometimes by laws which specify the amount of the liability for various kinds of injury, and sometimes by their own published list of fees allowed for the treatment of various kinds of injury, shifts the larger part of the burden to the doctor who happens to be called in to care for the injured employe. Although the doctor is in no way responsible for the injury and is under no obligation to any of the parties involved, he is made to contribute a part of the value of his services to the injured employe to mitigate the liability of the employer. From no point of view does this appear to be equitable, just or honorable. After the services have been rendered, however, the doctor seems to have no recourse. He may accept whatever the indemnity company sees fit to offer or, if the amount of his fee justifies, he may bring suit

against the injured party or the employer with a fair chance of getting as much as he had been offered before. There is nothing in any of the compensation laws which binds the doctor to accept the ridiculous fees that are scheduled, but there seems to be no way to compel the responsible employers to pay more than the specified amount of liability. If the doctor is called by the injured employe, he may be able to collect his regular fees from the employe himself who in turn will be reimbursed by the employer or his insurers, but only to the extent of the specified liability.

Public opinion would readily condemn the doctor who, when called in a case of serious emergency, demanded a definite agreement as to who would be responsible for his fees, or as to the amount he would be allowed. And while this is the only way in which he may protect himself and assure himself of a proper compensation for his services, there are few who are sufficiently regardless of public opinion to carry it out.

In the ordinary affairs of life, one puts considerable stress on the value of experience as a teacher, but in the practice of medicine, in this particular line of practice at least, a very important lesson in business is "flunked." Occasionally one is found who regularly insists upon an agreement with the employer before touching the case, but he is an exception.

Only recently a physician in the southern part of the state was called to attend a man who had been injured. The place was fifteen miles distant, the roads very bad and very muddy. His car was damaged and required to be hauled in. The expense and repairs amounted to \$60. He presented a bill of \$17 to the employers who referred him to the indemnity company with whom they carried insurance. The indemnity company wrote him that his bill was ridiculous, etc., and according to the last report has not paid him anything.

A doctor who had done considerable emergency work for a manufacturing company, and who had always been paid promptly, felt that he was very considerate of the company's welfare when he made a charge of \$5.00 for cleaning up and dressing a badly lacerated hand of one of their workmen. In this in-

stance, however, the company referred his bill to the insurance people who promptly informed him that \$3.00 was all they would pay him. From his former experience he had reason to expect the manufacturing company to pay his fee and if they authorized his treatment of the case he could probably have collected in full, but they had shifted this responsibility to other parties whose business it is to get as much as possible for as little as possible.

The individual asks the doctor what his charge is, the company, firm, or corporation tells the doctor what it will pay. But that is the fault of the medical profession. One must admit that sentiment plays some part, sometimes a very active part, in the doctor's service to an individual, but a corporation has no soul, it has no sentiment, and the doctor's relations with a corporation, company, or firm should always be on a strictly business basis.

—R—

Consolidation of Government Science Under Smithsonian Institute

A plan for the consolidation or assembly of all the scientific bureaus of the Government under the Smithsonian Institute is being agitated by Arthur MacDonald. The argument he advocates for this change has much to commend it. One of the advantages suggested is that these bureaus would be removed from political influence and interference, but perhaps the most important is that under such a plan there would be possible greater co-operation between the different departments of science and much less duplication of effort. His plan for consolidation will include the following bureaus:

1. Geological Survey.
2. Reclamation Service.
3. Bureau of Mines.
4. Patent Office.

5-16. All scientific bureaus of the Agricultural Department (12 in number) affording these bureaus still greater opportunity to develop and benefit still further the agriculture of our country.

17. Vital and criminalological and other abnormal statistics of the Census Office.

18. Bureau of Standards.
19. Bureau of Fisheries.

20. Hygienic Laboratory.
21. Bureau of Public Health Service.
22. Army Medical Museum and Library.
23. Government Hospital for the Insane.
24. Coast and Geodetic Survey.
25. Library of Congress (to be called Library of the United States).
- 26-32. Bureaus of the Smithsonian Institution itself (7 in all).

The purposes and advantages of this plan for the consolidation of government science under the Smithsonian Institution are summed up as follows:

1. To develop government science to the highest possible efficiency.
2. To correct illogical and haphazard arrangements of bureaus or departments.
3. To reduce political influence in scientific bureaus to a minimum.
4. The efficient development of scientific bureaus under a scientific head is much more probable than under a political head.
5. To unite pure and applied science into a happy medium, increasing the efficiency of both.
6. To encourage scientific men in their work, which makes toward efficiency.
7. To put Government scientific work upon the high university plane.
8. To avoid duplication of scientific work, appropriations and duplication of library books. It also facilitates their proper distribution.
9. To advance government medical science, which has been much neglected.
10. To give permanency of position and independence to experts, making it possible to get the best men of science to work for the government.
11. To make very improbable interference or meddling of the head in the work of the many bureaus under him.

—R—

On account of its antiseptic action, its antispasmodic effect on bronchial spasm, its sedative effect on skeletal muscle, and its anesthetic effect on the larynx, benzyl benzoate should be an ideal remedy in pertussis. Reports from various sources indicate that it is at least palliative, lessening the violence and number of the paroxysms.

Nursing Rates in Kansas

The following schedule of rates was adopted by the State Nurses Association a few years ago, but as there seems to be some misunderstanding among the physicians of the state in regard to the schedule we are asked to give it publicity:

(TO BE USED AS A GUIDE)

Approved by The Kansas State Nurses' Association.

General Medical and Surgical Work; one nurse on the case, per week.....	\$35.00
Less than one week, per day or fraction of a day	6.00
General Medical and Surgical Work; two nurses on case, working twelve hours each, per week	30.00
If case lasts less than a week, then each nurse, per day	5.00
Prostatectomies, per week.....	40.00
Contagious Diseases, per week.....	40.00
Obstetrical Cases, per week.....	40.00
While waiting for Ob-tetrical Cases, per week	35.00
Tonsillectomies, per day	6.00
Smallpox and Meningitis, per week...	50.00
For two nurses on case, each nurse, per week	35.00
Nervous, Mental, Alcoholic and Drug Addicts, per week	45.00
Relief Work, each twelve hours.....	5.00
Hourly Nursing, first hour.....	1.00
Hourly Nursing, each additional hour..	.50
For each additional patient, per week, extra	10.00
"Flu," Pneumonia and Typhoid Fever are classed with Contagious and Infectious Dis- eases.	

Rates to Clergymen, Physicians and Nurses optional with nurse in attendance.

Traveling expenses to be paid by employer.

The R.N. should be relieved for six consecutive hours' sleep and two additional hours' recreation out of each twenty-four hours.

—R—

CHIPS

All authorities agree that a tonsil which is diseased should be removed. Some great public benefactor should now tell us what an undiseased tonsil looks like. They are so rarely found now that one wonders if possibly they do not happen any more.

Dr. Nathan Row, president of the Tuberculosis Society, London, stated that pulmonary tuberculosis is caused by the human bacillus in 90 per cent of cases and was always pri-

mary. The remaining ten per cent were secondary to a primary infection by the bovine bacillus and were either an extension from the cervical glands downwards to the apex or extension upwards from the abdomen to the bronchial glands.

Dr. Robt. Werndorff, formerly connected with the University of Vienna, has recently located in Wellington and will conduct an orthopedic clinic there.

It is perhaps fortunate that legislative bodies rarely attempt to define the meaning of words. One of the most absurd results of an effort of this kind may be found in an amendment to Section 1288 of the General Code of Ohio in which the following appears: "Major surgery, which shall be defined to mean the performance of those surgical operations attended by mortality from the use of the knife or other surgical instrument."

The Consultant Architects have finished their part of the contract for the new building to be erected for the School of Medicine and the detailed work necessary for completion is being done by the State Architect. The contract will be let as soon as these details are finished.

J. H. Means carried out studies which show that the basal metabolism is normal in cases of simple obesity. The widespread treatment of obesity by the administration of thyroid preparations is a device for raising metabolism to an abnormal level. The treatment of simple obesity by producing a state of hyperthyroidism has recently been designated as pernicious by Means. Simple obesity can now readily be differentiated from the obesity due to endocrine disorders by determination of the basal metabolism. If this is normal, weight reduction should not be attempted by the use of thyroid (Jour. A. M. A., Sept. 3).

Roussy and Lerou have recently published results of an investigation of the pathology of broncho-pneumonia in the aged. In 300 post mortem examinations broncho-pneumonia was found in 162 cases and lobar pneumonia in 4 cases. They report the frequent finding of chronic arteritis and pulmonary sclerosis. The lesions lead to the occurrence of complete or

partial thromboses with ischemia and possibly necrosis. A secondary microbic infection is more likely to occur in an infarct of the lungs than in one of the kidneys or brain.

According to evidence obtained from x-ray examination of the chest it is concluded that pulmonary tuberculosis always begins in the hilus glands and spreads, bandwise or fanwise, toward the apex. A pure apical tuberculosis is never found without definite signs at the root.

George N. Jack (N. Y. Med. Jr. Sept.) has evolved a very interesting theory for the occurrence of "summer autumnal coryza. His conclusions are based upon a study of 1,184 cases extending over a period of twenty-five years and are summarized as follows: "Heat or a temperature above 86 degrees, in a highly humid atmosphere or humidity above 70 degrees, often results in heat retention hemolytic crises, as heat prostration, sunstroke, and dropsy, and when a spell of weather of this character is followed by chilly, humid, dewey, ground gas accumulating, blood disintegrating night with a temperature below 60 degrees or between 34 and 60 degrees then after the blood disintegrates it dumps its disintegrated material through an exudative process that results in summer autumnal coryza, asthma, eczema, cholera infantum, cholera morbus, dysentery or vomiting, according to the line of least resistance.

Experience proves that flesh eaters have not the power of endurance that those persons have who live on vegetable and low protein diet. Muscle strength and muscle endurance are not one and the same conditions. "Muscle strength is measured by the force it can exert at once. Muscle endurance is measured by the number of times it can repeat a given exertion well within its strength."

If the appetite has been perverted, its normal craving is the best guide in selecting the kind and character of the food to be eaten.

A good rule to practice in eating is to chew the food until there is involuntary swallowing, the same as breathing. Eating when not hungry breeds trouble for the eater.

The fat man and the lean man each has his

inning in the race for longevity. Fat cells do not work and the fat man is loaded up with a lot of loafers weighing him down.

The skinny man has more working cells, pound for pound, and few if any loafers to annoy him. The fat man, in case of scarcity of food or famine, can feed on his drone cells and outlive the lean man. The fat man has more body surface exposed and has to part with more heat units in a given time than the skinny man. The lean man loses more heat in a given surface than the fat man, because his cells are all workers.

Warts contagious? In a test made recently at the University of Michigan, it is reported that powdered ward, dusted on the skin, denuded of its epithelium, produced new warts. This does away with the toad fluid etiology of warts. But it does not tell us how the first wart warted. Maybe denovo?

The auto foot disease is called acceleritis. The name of the ailment is derived from the mechanical cause of the affection and not from the anatomical parts involved. The pain and inflammation is due to the constant pressure of the foot on the accelerator of the car, which has a tendency to misplace the metatarsal bones.

There is an innate antipathy in human nature to enjoying a joke on one's self. Dr. Minney says the commencement of the dislike originated in the Garden when the snake pranked Eve and is the maternal impression handed down with the original sin. He says it takes a long time and strenuous practice to get in condition to enjoy a joke on one's self. The doctor claims to have become immunized to the extent of telling this one on himself. He said, "When I was a young man, I was inclined to run to poetry. I wrote a poem and sent it for publication. The title of the poem was "Why Do I Live?" The publisher sent it back and had written on it, "The only reason you live, is that you sent your doggerel by mail."

The average doctor is not a star of the first magnitude in his profession. He is not brilliant. It is a good thing for him that he is not. It is a good thing for his patients and

the profession. If all doctors in the profession were brilliant it would not be known. It is by comparison that differences in ability are recognized. There is but one sun to light the solar system. If all the stars were suns the light would be so bright that we could not see. Too much brilliancy like too much talk obscures the object and confuses the hearer. The brilliant doctor is the scientist who goes ahead and blazes the way to new discoveries in medicine. He projects himself into the future. He discovers something. He is a necessity to progress. He is seldom practical in carrying out, in his application, the new discoveries. To prove their merit and to make them workable is the province of the average physician in the ranks.

Hence the average doctor is as essential in his place as the brilliant scientific M. D.

Moral: The average doctor should not be satisfied with his attainments. Neither should he be dissatisfied, but he should be unsatisfied—pleased with what he has but hungry for more.

The medical man is coming into his own slowly and he is slowly improving his advantage. The plan, method or system of education all along the line, professional and non-professional, has smacked too much of the crawl-fish way of locomotion.

Education is placed in the beginning of life instead of later on. In other words, "of more primary importance is the sort of children we have to educate than the sort of education we have to give them." Both sorts are necessary. It is the kind of material that determines the permanency of the structure. The stress in the main, has been on the sort of education and degeneracy is the result.

Hence the conclusion—that continued progressive civilization depends upon the virility of the human race and it is up to the medical man to improve and develop the human physique and in this way round out his professional opportunity, and be a bigger factor in maintaining and advancing civilization by conservation, selection, elimination and prevention and in raising his fellow man up on a higher plane of intelligence and worth-while living. This can be done by conserving all human life; selecting the best to propagate the

human species; eliminate by sterilizing the unfit, and thus prevent reproduction of their kind.

Do not permit the feather duster to be used in dusting the furniture in the sick room. Its use should be prohibited in any room at any time. Its use raises the dust and the bacteria ride the particles around and aeroplane into the nose, mouth and lungs in the air inhaled. Use a moist or oiled cloth and wash it every time it is used or else burn it after using it once.

Keep the air clean in the rooms and free of dust at all times, but especially in the sick room.

Moist climate for dry catarrh. Dry climate for moist catarrh. Allopathy? In addition breathe sunlit air. Sunlight puts the coloring into the plant (Chlorophyll) which beautifies, hardens and strengthens it and enables it to withstand the buffeting it will get if it is to live—ditto man.

Always use a placebo when in doubt. It will be safer for the patient and downy pillow the head of him who gives it.

The fiftieth annual meeting of the American Public Health Association will be the occasion of a Health Fortnight. From November 8-19, New York City will be the scene of activities connected with this event, and the publicity with its slogan "Health First" will stimulate interest throughout the country.

Health Fortnight will include three major divisions—a Health institute from November 8-11; A Health Exposition, November 14-19, the Fiftieth Annual Meeting of the American Public Health Association, November 14-19. Representatives from virtually every State in the Union and from many foreign countries will participate in the extensive program.

The Medical School is showing a remarkable gain in popularity, for this year 82 first year students have been admitted and there are 200 pre-medical students in the college.

Calcium Caseinate—Casein from cow's milk, rendered partially soluble by combination with calcium and containing not less than 1 per cent of calcium. The diarrheal diseases

of infancy are now generally treated by dietetic measures. A useful food may be made from the curd of milk and diluted buttermilk, the resultant mixture containing a moderate amount of fat, a small amount of sugar and a large amount of protein (casein) and salts, particularly salts of calcium. A mixture of calcium caseinate and milk is also used. For children, calcium caseinate is mixed with milk and water or milk and gruel in the proportion of 10 Gm. calcium caseinate and one pint of the liquid and the mixture boiled. Calcium caseinate is a yellowish powder, free from rancid or sour odor. With warm water it forms a turbid suspension. Calcium caseinate must not contain more than 10 per cent of moisture, nor more than 2.5 per cent of fat and not less than 14 per cent of nitrogen. Casein is a brand of calcium caseinate N. N. R. made by Mead Johnson and Co., Evansville, Ind.

Mercuric Oxycyanide has been proposed as a substitute for mercuric chloride. Its antiseptic power is said to be greater and it is claimed to be less irritating than mercuric chloride because it does not act on albumin to the same extent. Representative syphilographers differ as to the use of mercuric oxycyanide intravenously. Some believe that its use should be limited to hospitals; others that it has no advantage over other and safer methods of administering mercury, while others consider it safe and valuable. But all are in accord that its safe use requires experience. Mercuric oxycyanide may be administered subcutaneously, intramuscularly or intravenously in the same doses as mercuric chloride.

Benzyl Succinate is the dibenzyl ester of succinic acid. Benzyl succinate lowers the tone of unstriated muscle, its action being similar to benzyl benzoate in this respect. It is superior to benzyl benzoate in being less irritating, less nauseating and in containing a greater proportion of benzyl radicle. Its use has been suggested in renal, biliary, uterine and intestinal colic, excessive intestinal peristalsis, dysmenorrhea, hiccup and other spasms of unstriated muscle. Its clinical use is still in the experimental stage. The dose is

0.3 to 1.0 Gm. Benzyl succinate is a crystalline, odorless and almost tasteless powder. It is almost soluble in water, but soluble in alcohol. (J. A. M. A. Sept. 25).

Diphtheria Preventive Measures—It seems likely that the securing of widespread immunity is to be an important aim in the prevention of diphtheria. In this work the Schick test, whereby the existence of immunity or susceptibility to diphtheria can be determined with ease and precision, seems destined to play an important part. Thousands of tests have been applied to school children of New York. Further in the recent test of more than 52,000 school children of New York, those who gave a positive test were injected with toxin-antitoxin mixture to secure active immunization. If the medical profession accepts the contention that the Schick test is a reliable indication of the susceptibility to diphtheria and, further, that the currently proposed methods of toxin-antitoxin injections are effective in developing a lasting immunity, a great step in progress will have been made (Jour. A. M. A., Sept. 24).

Cataphrenias—Austregesilo has been teaching for some time that the curable cases of dementia praecox and similar diseases should be classed apart, and for this class he has coined the term cataphrenia. A wide variety of causes, from syphilis to epidemic encephalitis, may induce this spurious dementia praecox. It includes many cases of manic-depressive psychosis of a confusional type, post-traumatic psychoses, curable chronic confusion, delirium of a catatonoid type, confusional hysterical psychoses on an oniric basis, and probably many cases erroneously labeled dementia praecox although the patients finally recovered. He adds that in the classic description of dementia praecox by Kraepelin in his textbook, he alters the description somewhat in each succeeding edition. Time will probably define still more clearly this notion of cataphrenias.

Austregesilo, A.; Cataphrenias, *Brazil-Medico*, Rio de Janeiro, Jan. 15, 1921. (J. A. M. A., April 2, 1921.)

Maranon is convinced that the vasomotor disturbances inducing the acrocyanosis are traceable to insufficiency of the genital glands, predominantly of the ovaries, and

hence his term "hypogenital hand." There may be insufficiency of other endocrine glands, but the genital insufficiency is predominant and constant. A glimpse of the congested cyanotic, clammy hands is enough to suggest genital infantilism; the hands are usually puffy and doughy, and the nails are often spotted. The age is between puberty and maturity or at the menopause, and the subjects are usually females. Time and organotherapy are the reliance in treatment, especially intensive and prolonged ovarian treatment. Heliotherapy has also yielded excellent results in his hands, both for acrocyanosis alone or associated with tuberculosis or other chronic infection.—K. M.

Maranon, G. The Hypogenital Hand, or Acrocyanosis; *Siglo Medico*, Madrid, June 18, 1921, (J. A. M. A., Sept. 24, 1921.)

The specialist is not able today to make a diagnosis of General Paralysis from the physical (or mental) examination alone. The disease may be confounded with false General Paralysis of a syphilitic origin; also with syphilitic dementia on an organic basis, with syphilitic neurasthenia, with mania, delirium, the epilepsies, etc., as these often arise on a chronic syphilitic basis. The general mass weakening of the intellect is characteristic of general paralysis, therefore it seems probable that general paralysis is a true disease in which a definite and fixed formula for the cerebro-spinal fluid will be agreed upon in the not distant future. (Actually already at hand. Translator.)

Benon, R. La diagnostic de la paralysie generale, Trente-quatrieme Anne, Oct. 23, 1920. (Translated by Karl A. Menninger, M.D.)

The reticence which formerly characterized the attitude of certain physicians toward the injection of large doses of antitoxin in cases of diphtheria has almost entirely disappeared. This, in no small measure, is attributable to the enterprise of biological manufacturers in developing new and improved methods of antitoxin production. The diphtheria antitoxin put out by Parke, Davis & Co. is remarkable for its concentration and purity. The total solids in this product have been reduced to a minimum, thereby practically eliminating the possibility of anaphylactic reactions. The high concentration of this antitoxin makes feasible the injection of an ade-

quate number of antitoxic units in small bulk—a most desirable quality, since the pain and discomfort resulting from the injection are negligible and, if given subcutaneously or intramuscularly, absorption is hastened.

DEATHS

Dr. Albert W. Carson, Richland, aged 71, died at his home September 29. Dr. Carson was born in Ohio and was graduated from the Medical College of Ohio, Cincinnati, in 1875. He practiced medicine at Dover, Kansas, for thirty-five years and had located at Richland only a few years ago.

SOCIETIES

Sixteenth Annual Meeting of the Medical Association of the Southwest

To be Held at Kansas City, Mo., Oct. 25-28.

The members of the Kansas State Association are more than cordially invited, they are urged to plan to attend the sixteenth annual meeting of the Medical Association of the Southwest to be held in conjunction with the Missouri Valley Medical Society at Kansas City, Mo., October 25-28.

Already the plans have been perfected for a clinical week, the like of which has never been attempted before in the West. Every hospital in the two Kansas Cities has responded nobly and as a result, beginning Tuesday morning at 8 o'clock and lasting through until Friday and in a number of instances until Saturday morning, there will be clinics in every hospital by practically every man on each of the staffs. This alone should call for a very large attendance; but the scientific program for the remainder of the day has not been overlooked and with visitors such as Dr. Victor C. Vaughn, and Dr. Hugh Cabot and Dr. Wm. Englebach and Dr. M. P. Ravenel to deliver addresses and a large number of very practical and helpful papers a profitable time is assured.

Beside this the Entertainment Committee are organizing for the purpose of entertaining those in attendance in such a manner that the visit will be long remembered, and not alone the men but their wives are to be entertained

also so that every physician is urged to bring his wife along..

Kansas City turned out in large numbers last year when the meeting was held at Wichita so it is hoped that Kansas as a whole will return the call.

Don't forget that you had better make your hotel reservations early and that you must secure a certificate when you purchase your ticket in order to secure half fare on the return trip.

Stafford County Society

In the report of the Stafford County Society which appeared in the September number of the Journal an error was made. In the report of Dr. Dillon's paper, instead of 20% formalin-glycerine mixture it should read 2%.

Sumner County Society

The Sumner County Medical Society met at the Park House, Wellington, Kansas, Thursday evening, September 29, 1921.

Program.

- I. Nutritional diseases of infants and their treatmentDr. J. R. Burnett
Discussion led by Dr. M. W. Axtel and Dr. J. C. Woll.
- II. DiabetesDr. H. L. Cobean
Discussion led by Dr. M. Collins and Dr. R. H. Downing.
- III. Paracentesis Auris..Dr. E. J. G. Shults
Discussion led by Dr. E. C. Thompson and Dr. L. H. Sarchet.
- IV. Pellagra—review of literature.....
.....Dr. G. S. Wilcox
Discussion led by Dr. H. A. Vincent and Dr. F. G. Emerson.

T. H. JAMEISON, Secretary.

Can Pathological Somnolence Be Considered a Focal Symptom?

A case is reported of a man 29 years old with marked and early onset of somnolence and paresis of the right facial muscles, and also of the superior levatores palpebrae and tongue muscles. The pupils did not react, and singultus was frequently seen. Encephalitis lethargica was suspected. At autopsy, the lateral and third ventricles of the brain were

widely dilated and a chestnut-sized tumor was found in the left optic thalamus with pin-head-sized hemorrhages in the caudal end.

The cause of the internal hydrocephalus was increased transudation in the choroid plexus and diminished reabsorption from the ventricles. There was no obstruction of the aqueductus sylvii and no signs of inflammatory reaction. The internal hydrocephalus increase the intracranial pressure, thus completing the vicious circle. The somnolence was due to disturbances in the course of the nerve-tracts of the various end-organs from the thalamic tumor which prevented the usual sensory stimuli from reaching the cerebral cortex, thereby inducing sleep. The obstruction to the stimuli is not absolute, since the patient can be aroused by increasing their intensity, as by loud speaking, prodding, etc. The same condition is found in encephalitis lethargica. In order to determine whether or not somnolence is a focal symptom it is important to know the extent of involvement of one or both thalami. Somnolence as a result of toxemia of the cerebral cortex due to various substances, or to general intracranial pressure must be excluded.—G. O. E. Lignae, Berl. klin. Wehnschr., Apr. 25, 1921. (K.A.M.)

—R—

Significance of Diabetes Mellitus in Mental Disorders

Somatic conditions due to altered metabolism may be related to mental disorders. Lesions of the central nervous system, excitement and brain diseases near the fourth ventricle, produce glycosuria as an end-product of altered cerebral function. A more uncommon group shows mental manifestations unquestionably due to an autotoxemia resulting from faulty sugar metabolism. The intensity of the mental symptoms is in proportion to the toxemia, and improvement of the sugar metabolism shows a corresponding approach to normal mental function. Diabetes mellitus may occur in the course of any psychosis as a purely physical complication or may be the direct etiologic factor in the development of a psychosis. With early recognition and prompt treatment the progress of the mental disorder may be stayed.—Horace Victor Pike, J. A. M. A., June 4, 1921. (K. A. M.)

The Pathogenesis of Catatonic Stupor

A deep catatonic stupor of several months' duration was seen to disappear completely after a subcutaneous injection of cocain. The author tried this treatment in 11 cases, giving 0.025 to 0.05 gm. cocain hydrochlorate. There was improvement in 8 cases. The other 3 were cases of years' duration. The improvement in all cases was transient, lasting from one to two hours, and therefore the treatment has no therapeutic value.

Theoretically, no qualitative changes of cerebral function can occur, but only an increase or decrease of activity in the normal brain centers. Experimentally, cocain causes cerebral excitation. In man, the primary effect is that of inebriation, and a marked but transient increase of central motor excitability, with subsequent depression. Cocain increases the dissimulative processes of the brain, and in catatonic stupor this process is released, showing that the stupor is dependent upon a lessened cortical function. As long as the cocain is effective, the cerebral cortex is active, the patient talks and shows interest and takes part in his surroundings. As soon as the effect of the cocain wears off the stupor returns. The cause of the depression of cortical function in the beginning is only functional, but in the later stages organic changes set in.—H. Berger, *Munch. med. Wchnschr.*, April 15, 1921. (K. A. M.)

—————R—————

New Method of Preventing Postoperative Intraocular Infections

Four hundred intra-ocular operations without a single primary infection is the record made by George Huston Bell, New York (*Journal A. M. A.*, Oct. 1, 1921). He pays no attention to the findings of the bacteriologist. The focal infections, such as oral sepsis, diseased tonsils, and toxemias of the intestinal tract, must be removed. This work on focal infections must be done from two to three months before the patient is admitted to the hospital. Twenty-four hours before the operation, a dose of castor oil is given. Two hours before the operation, a smear of the conjunctival sac is taken, after which 2 drops of 1 per cent solution of silver nitrate are instilled

into each eye. The eyes are then irrigated with a normal salt solution, as a means of freeing the operating field of mucus, dust, etc. After the patient is well under the local anesthesia, the operation is performed.

—————R—————

Variation in Mental Activity in Dementia

Dementia was formerly regarded as a complete destruction of the intellectual faculties. This conception, the author believes, is not the true one. Three cases are described, one of dementia praecox, one of dementia following diffuse meningo-encephalitis and one of senile dementia in which states of tolerably clear mentality followed an extremely low mental condition. There is not a destruction of tissue in any one localized area, nor yet a destruction of any of the "psychic elements" described by some psychologists, such as reason, judgment, emotion or memory, and which they try to connect with certain definite areas of the cerebral cortex. This, Mignard holds to be an illogical mixture of psychology and materialism. It is true that different forms of dementia have different characteristics; dementia praecox affects particularly the emotions, senile dementia the memory and paralytic dementia the judgment. But they all have certain characteristics in common. Dementia is a reaction rather than a definite and final condition. It is a reaction characterized by degradation and failure of the usual mental activity. But it is not an amentia nor a schizophrenia, if there be such a splitting of consciousness as is indicated by this word. No special brain area is affected, but the lesions are more extensive and diffuse, and comparatively slight in degree. The entire mentality is disturbed in its impressions, its means of expression and its symbols, and while there is a lowering of the capacity for thought, there is a still greater incapacity for giving expression to such thought as there is. There is apt to be a period of confusion at first, after which the ego gives up the effort at expression and sinks into a state of apathy and indifference. But there are certain conditions that may arouse it from this state of comparative mental torpor and with a certain amount

of care and effort a quite unexpected degree of mental capacity may be brought on.—Maurice Mignard, *Encephale*, Paris, April, 1921. (Menninger.)

—R—

Prevention of Simple Goiter in Man

The ultimate cause of simple goiter is totally unknown, notwithstanding a relatively large amount of study. The immediate cause is a lack of iodine. The enlargement, therefore, is a symptom and may result from any factor which increases the iodine needs of the organism, as in certain types of infection, or which interferes with the normal utilization of iodine; or it may result from actual experimental deprivation of iodine. After consideration of all the various substances, agents and theories that have been put forward as having a role in the etiology of goiter, David Marine, New York, and O. P. Kimball, Cleveland (*Journal A. M. A.*, Oct. 1, 1921) state that at present we must fall back on the view that thyroid hyperplasia (goiter) is a compensatory reaction arising in the course of a metabolic disturbance and immediately depending on a relative or an absolute deficiency of iodine. No accomplishment in preventive medicine has a firmer physiologic and chemical foundation than that underlying goiter prevention. As the work of preventing is based on certain of these facts, the more important are reviewed by the authors. A milligram of iodine, given at weekly intervals, has been found sufficient to prevent thyroid hyperplasia in pups. If the iodine store in the thyroid is maintained above 0.1 per cent, no hyperplastic changes, and therefore no goiter, can develop. The method as applied to man consists in the administration of 2 gm. of sodium iodide in 0.2 gm. doses, distributed over a period of two weeks, and repeated each autumn and spring. This amount of iodine is excessive, and far beyond the needs of the individual or of the ability of the thyroid to utilize and store it. One gram distributed over a longer period would be better. The form or mode of administration of iodine is of little consequence. The important thing is that iodine for thyroid effects should be given in exceedingly small amounts, and it is believed that most of the untoward effects recorded

are due to the excessive doses employed, or more, concretely, to the abuse of iodine. The results of their two and one-half years' observations on school girls in Akron are as follows: Of 2,190 pupils taking 2 gm. of sodium iodide twice yearly, only five have developed enlargement of the thyroid; while of 2,305 pupils not taking the prophylactic 495 have developed thyroid enlargement. Of 1,182 pupils with thyroid enlargement at the first examination who took the prophylactic, 773 thyroids have decreased in size; while of 1,048 pupils with thyroid enlargement at the first examination who did not take the prophylactic, 145 thyroids have decreased in size. These figures demonstrate in a striking manner both the preventive and the curative effects. The dangers of giving iodine, in the amounts indicated, to children and adolescents are negligible.

—R—

Hypertension With Minimal Renal Lesions

Five cases are cited by Eli Moschowitz, New York (*Journal A. M. A.*, Oct. 1, 1921) which demonstrate that even excessive hypertension may be associated with minimal lesions within the kidney. These cases Moschowitz asserts demonstrate that sometimes, at least, a hypertension need not be of renal origin, even though clinically evidences of nephritis cannot be directly correlated in terms of morphologic evidence of renal disease, and vice versa. Even if a renal origin of hypertension is granted, these cases prove, what has been demonstrated repeatedly at necropsy, that the degree of hypertension bears no relationship to the degree of anatomic destruction within the kidney. Arterial disease should no longer be regarded as the cause of hypertension; rather the reverse is true. The lesions of arteriocalillary fibrosis and of atherosclerosis and of albuminuric retinitis have so many points of analogy that for all practical purposes these may be regarded as one and the same lesion. The lesion in the kidney and in the retina is essentially the same as that in the arteries, and the changes in the parenchymatous or, rather, extravascular, portions of these organs are in greatest part dependent on and explainable by the vascular changes.

This accounts for the frequency of associated clinical phenomena referable to other organs in hypertensive disease, e. g., brain, aorta, heart, pancreas, arteries, etc. In this conception, arterial disease and arteriocapillary fibrosis are not maladies which bear any mutual reaction to each other, but are contemporaneous reactions to the same insult. Evidence is again submitted that the lesions of the secondary contracted kidney (malignant contracted kidney) in which hypertension is present, and the decrescent kidney (benign contracted kidney, arteriosclerotic kidney, primary contracted kidney) in which hypertension is slight or absent, are morphologically, to all intents and purposes, identical. To explain the pathogenesis of the latter form of contracted kidney, the hypothesis is submitted that whereas in the secondary contracted kidney the most important, if not the main factor in its production, is vascular hypertension, in the primary or benign contracted kidney it is vascular tension. Hypertension in this conception is merely an exaggerated phase of a normal functional process. The functional changes in the organism are consequent on compensatory mechanisms.

—R— Heart in Diphtheria

The cardioclinical and cardiographic observations reported by S. Calvin Smith, Philadelphia (*Journal A. M. A.*, Sept. 3, 1921) are based on a study of 242 patients suffering from diphtheria of varying severity and extent, involving the respiratory tract. The vast majority presented a rapid heart rate as the only evidence of cardiocirculatory disturbance on admission. Seventy-two per cent of the number progressed through convalescence from diphtheria without any further evidence of cardiac disturbance. The other 28 per cent, after a lapse of several days in the hospital, showed vagaries of the pulse and some of them gave evidence of grave cardiocirculatory fault. It thus became evident that the heart abnormalities encountered in these studies of diphtheria could be divided, for the purpose of discussion, into two groups in the order in which they appear, namely, a

period of what may be called initial tachycardia, including the vast majority of admissions; secondly, those who later on presented manifestations which can be tentatively known as the irregularities of convalescence, embracing 28 per cent of the total number. Smith points out that the earlier antitoxin is used intravenously, the less likelihood there is of eventual heart muscle poisoning. That objection which parents or patients may have to the intravenous use of antitoxin—the fear that it may cause sudden death—can be met by protecting the patient against the ever-present possibility of lethal anaphylactic shock through the simple expedient of first employing a desensitizing dose (0.5 c.c.) of antitoxin; an hour after this small subcutaneous dose the full therapeutic dose can be slowly administered intravenously. Heart care should extend far beyond the usual quarantine period prescribed by law. In protecting from overstrain the child heart which has passed through diphtheria or any other acute infection, regulation of school life is an important point to be considered. "Cardiac classes," where weaker children have comfortable furnishings, limited hours of study, stated and regulated periods of play, and where they are excused from routine gymnastics, fire drills, marches, etc., need not be limited to the large centers of population. Atropin is of doubtful utility in the tachycardia of diphtheria. Digitalis is distinctly contraindicated in diphtheria. Epinephrin, despite its fleeting action and the consequent necessity of repeated administration, will likely prove to be the stronger member of the usually inefficient group of drugs which are employed in the treatment of diphtheritic heart block. Strychnin, by stimulating the suprarenals and causing an increase in suprarenal secretion, may have a similar beneficial cardiac effect, although the circulatory failure attendant on toxic heart block is likely to inhibit the response of the suprarenal glands to such stimulation. Caffein, in the latter days of convalescence from diphtheria, often proves to be a valuable aid in improving circulatory tone, as may also such systemic tonics as iron, quinin and strychnin.

Clinical Diagnosis of Heredosyphilis

The importance of a careful study of the familial customs of persons manifesting signs of heredosyphilis is emphasized by Henry F. Stoll, Hartford, Conn. (*Journal A. M. A.*, Sept. 17, 1921). The so-called stigmas are numerous and varied; some are very apparent while others are detected only on careful examination. It is true that the pathognomy of many if not all can be questioned, yet the occurrence of several in an individual establishes one of the most definite clinical pictures there are. It is quite another matter, especially in adults, to deduce that the symptoms are due to the prenatal syphilitic infection. To do so one must in the first place be sure that syphilis might be responsible for the symptoms, and secondly that no more probable etiologic cause can be found. The deep scars in the lips extending out into the skin are one of the most trustworthy signs. Similar scars may be present about the anus. Congenital syphilis sometimes leaves its mark on the teeth. The saber case tibia is rarely encountered except in Italians and negroes. Syphilis should always be suspected in children showing eye palsies. Stenosing lesions of the mitral valve are frequently due to hereditary syphilis. Other causes of failure to recognize heredosyphilis may be due to (1) failure to appreciate the fact that syphilis is very common and affects all ranks of society; (2) the neglect of the Wassermann test. A positive reaction is the most constant symptom during infancy and early childhood; (3) failure to realize that in late heredosyphilis the Wassermann is very often negative.

R

New Roentgen-Ray Sign of Ulcerating Gastric Cancer

Russell D. Carman, Rochester, Minn. (*Journal A. M. A.*, Sept. 24, 1921) has repeatedly been able to demonstrate a particular type of deformity which at operation invariably proved to be malignant ulcer. Its roentgenologic appearance is so definite that he considers it to be pathognomonic. Fluoroscopic examination is essential for the routine demonstration of this lesion because manipulation is nearly always requisite for its exhibi-

tion. If the examination is limited to roentgenograms only, the barium solution may prevent apposition of the walls of the stomach in the neighborhood of the lesion, and thus the deformity may be completely overshadowed. When the ulcer is on the vertical portion of the lesser curvature or on the posterior wall near the lesser curvature, approximation of the walls of the stomach by palpation causes a dark, slightly crescentic shadow of the barium-filled crater to appear on the screen. In these situations the convexity of the crescent is toward the gastric wall and the concavity toward the gastric lumen. The resemblance to a meniscus is so obvious that the word aptly applies to the sign. If the ulcer saddles the lesser curvature distal to the incisura angularis of a fishhook stomach a meniscus is similarly revealed by palpation, but in this instance the base of the ulcer follows the bending line of the curvature and the concavity of the meniscus is toward the gastric wall. When the ulcer is on the posterior wall, well away from the curvature, thinning the barium by stroking pressure with the hand reveals the crater as a somewhat circular, dark shadow surrounded by a lighter zone. No meniscus is apparent because in this situation the examiner does not view the cavity of the ulcer in profile. Whether the lesion is situated on the lesser curvature or on the posterior wall, if it is large, a mass may be felt by careful, deep palpation. If the ulcer is high in the stomach, palpation is less effective in eliciting all the signs described, although the shadow of the crater may be seen. If the ulcer is on the posterior wall and its crater can be demonstrated in the anteroposterior view, but no niche can be seen in the oblique view, we believe that we are dealing with this particular type of malignant ulcer. In fact, the absence of a classic projecting niche is one of its principal differential characteristics. Another point in distinguishing this type of malignant ulcer from a simple ulcer is their difference in emptying by manipulation. In the former, the barium is dislodged from the crater with difficulty because of the overhanging margins. In the latter, the niche is easily emptied because it has no such margins.

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Pelvic Cellulitis

W. J. EILERTS, Eldorado.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Pelvic cellulitis is an inflammation of the pelvic cellular tissue, which lies beneath the pelvic peritoneum and in a complicated intercommunicating space filled with a somewhat loose connective tissue. This tissue partly surrounds all the organs of the pelvis. In it are embedded the ureters and the large vessels of the pelvis. In some places the cellular tissue is loose and filmy, a characteristic which originally gave the structure its name. In other places it is denser and contains smooth muscle-fibers. These thickened portions constitute the so-called ligaments of the uterus.

Certain parts of the pelvic cellular tissue are characterized by special names from their relationship to various organs. Thus, that which is in contact with uterus is called parametrial; that near the bladder, paracystic; and that near the rectum, paraproctal. Inflammations of these portions have the corresponding names of parametritis, paracystitis, paraproctitis, etc., while a general term including any form of inflammation of the tissue is "pelvic cellulitis."

ETIOLOGY

Coming now to the consideration of the disease itself, we find that pelvic inflammation may be acute or chronic. Let us consider first, the acute variety.

The cause of acute pelvic inflammation is infection. The infection may be with the ordinary pus germ (staphylococcus and streptococcus) or with the gonococcus. Practically every case of primary acute pelvic inflammation in the adult can be traced to infection from labor, from abortion, from instrumentation, or from gonorrhea. Secondary inflammation of the genital organs may

be caused by extension from an inflammatory focus in some adjacent organ, *e. g.*, the appendix or the bladder.

In a large proportion of the cases of pelvic inflammation, particularly the gonorrheal cases, the infection extends by way of the uterine mucosa to the fallopian tubes, and through the tubes to the peritoneum and other pelvic structures.

Normally the internal os acts as an efficient barrier to all organisms except the gonococcus, the tubercle bacillus, and the spermatozoon. If, however, the os be artificially dilated, or if it becomes patent as a result of parturition, infection is possible from any pathogenic germ. In puerperal metritis (streptococcal and staphylococcal) the infection more often extends by way of the lymphatics directly through the wall of the uterus, from the endometrium to the connective tissue around the uterus, and to the peritoneum.

ACUTE PELVIC CELLULITIS

The posterior cul-de-sac, or pouch of Douglas, is the lowest point of the abdominal cavity, whether the subject be standing, sitting or lying down, and as a consequence the fluid exudates of a pelvic peritonitis tend to gravitate to this point. The anterior pouch of the pelvis (utero-vesical space), being at a higher level than the posterior, and out of range of the discharging ends of the tubes, remains comparatively free from infection except in very extensive cases. It is to be remembered, then, that the infective process is chiefly in the posterior half of the pelvis.

SYMPTOMS

A patient with acute pelvic inflammation complains of pain in the lower abdomen, increased by movements, such as walking or turning over or sitting up. She is usually confined to the bed. There may be moderate fever (101 to 103) or there may be high fever (105), the high temperature being

found most frequently in pelvic inflammation following labor or miscarriage. There is usually a vaginal discharge, due to coincident inflammation of the endometrium, and there is a history of a recent labor or abortion, or instrumentation or gonorrhea, or a history of a chronic endometritis due to one of these causes.

On abdominal examination the lower abdomen is found to be tender on pressure. This tenderness may be confined to one or both tubal regions, or it may extend all over the lower abdomen. On account of this tenderness the abdominal muscles are held more or less tense, thus preventing deep palpation. In the vaginal examination, character of the discharge is determined, indicating to some extent the etiology of the trouble, and there is noticed also the presence or absence of evidence of recent labor or miscarriage. Manipulations in the upper part of the vagina cause pain. This tenderness on vaginal palpation and bimanual palpation is found in the body of the uterus and about the tube of one or both sides. If a mass of exudate is present, it may be felt to one side of the uterus or behind it. If the exudate is low in the pelvis—for example, in the posterior cul-de-sac or about the prolapsed ovary or tube—it may be easily felt back of the uterus just above the posterior vaginal fornix. If the exudate is situated high in the pelvis, it may require very deep bimanual palpation to detect it, and the deep bimanual palpation may be impossible at first on account of the tension of the abdominal muscles. The mass of exudate is distinguished by its being more resistant (firmer) than the surrounding tissues and more tender on pressure. The exudate may extend all around the uterus, fixing that organ as though plaster of paris had been poured into the pelvis and had hardened there. In these cases of extensive distribution of the exudate the sensation imparted to the examining fingers is that of a firm roof across the pelvis just above the vagina. The uterus projects through this roof of exudate and is held firmly by it.

If there is a collection of pus of considerable size, fluctuation may be detected, the soft area being surrounded by a firm area of exudate which has not yet broken down.

If there is only a small collection of pus, not large enough to give fluctuation, its presence is indicated by persistent fever and its location is shown by a point of marked tenderness. When there is an inflammatory exudate in the posterior cul-de-sac, fluctuation may in some cases be detected earlier by rectal than by vaginal examination, the rectal finger being able to palpate the posterior surface of the mass.

TREATMENT

If seen early before suppuration occurs, palliative treatment is indicated as the process tends to absorption rather than suppuration. Absorption under treatment may take place in a few days, but may require several weeks, sometimes months. If suppuration occurs the abscess must be opened and evacuated.

PALLIATIVE TREATMENT

The best treatment is rest in bed with frequent hot vaginal douches. Douche should be given under aseptic conditions. In cases where the patient is confined to bed, the douche is given ordinarily twice daily. In severe cases it may be beneficial to give the hot douche every six hours and in some exceptional cases, it may be advisable to keep up almost constant irrigation of the parts for some days, using one-half per cent sodium chlorid solution.

TECHNIQUE

When the patient is arranged, the hips should be considerably higher than the rest of the body. A very convenient method is to place patient on douche pan, which should have an opening for attachment of rubber tube to conduct the water to the side of the bed, so that when desired, several gallons of water may be used without emptying douche pan. Douche should hang about eighteen inches above level of patient. As the patient can take the water warmer and warmer, increase the temperature, bringing it up to 115 degrees, if not too uncomfortable. Keep up the hot irrigation, for an hour ordinarily, or more, using as much water as necessary to maintain the irrigation for that length of time, the patient remaining in bed at least an hour afterward. Further treatment consists of applying ice pack to lower abdomen, for aborting inflammation, lowering tempera-

ture of diseased parts, decreasing congestion, retarding pus formation, diminishing exudation and has an analgesic effect on the nerves. The application should be discontinued for at least fifteen minutes every hour, for if applied too long may impair the vitality of the tissues.

OPERATIVE TREATMENT

If drainage is necessary, it should be effected by way of vagina. In all cases presenting an acute inflammatory mass in the pelvis, in which appendicitis and tubal pregnancy and suppurating tumor can be excluded, abdominal operation should be avoided, unless a spreading peritonitis is present. Vaginal drainage of an acute inflammatory mass is advisable when the collection of pus can be felt low in the pelvis and the collection of pus is shut off from the general peritoneal cavity by a wall of exudate above. Severe cutting pains indicate involvement of the peritoneum with exudate and protective walling off.

CHRONIC INFLAMMATION

An abdominal operation for chronic inflammatory mass in pelvis should not be undertaken before the period of probable sterilization, except in those rare cases in which, in spite of palliative measures, the patient's life is threatened by the severity of the inflammation and the infected focus can not be satisfactorily drained extraperitoneally. The time required for the death of the bacteria or effective attenuation of the same varies greatly in the different cases. The persistence of virulence depends largely upon the character of the infection. The two infections concerning which definite information has accumulated as to persistence of virulence are the gonococcal and streptococcal. In the gonococcal cases, the bacteria are dead or attenuated to practical sterility within three or four months from the beginning of the trouble, but in many cases much earlier. When the patient has had palliative treatment and has been free from fever not less than seven to ten days, a vaginal examination should be made, and if the manipulation does not cause a rise in temperature, it is usually safe to operate.

In the streptococcus cases on the other hand, the bacteria live and retain their virulence

indefinitely. In some cases there seems to be a diminution in the virulence, but this is erratic and not to be depended upon. Abdominal section for a mass of streptococcus origin is never safe. Such an operation at any time, even years after the infection, is liable to be followed by fatal peritonitis.

CONCLUSION

As a general proposition it may be said that the gonococcus is the only germ that will spontaneously invade the normal, non-puerperal uterus and the tubes. Purulent inflammation beginning in a normal vagina or uterus and later extending out in the pelvic cavity, may be set down as almost certainly gonorrheal.

The characteristic lesion of gonorrhea in the pelvis, is pyosalpinx, with or without complicating oophoritis and pelvic peritonitis. The great majority of all pus tubes are due to gonorrheal infection and the fever is usually moderate. In streptococcus cases there is usually high temperature. These two classes may be distinguished before operation in most cases, the distinguishing characteristics of each being found in the apparent cause of the trouble and the location of the lesion.

Pelvic peritonitis of virulent type, in which the inflammation is progressing seriously in spite of palliative measures, an opening into the posterior peritoneal cul-de-sac for drainage may be advisable. To be effective, the vaginal drainage must be instituted while the process is still confined largely to the pelvic peritoneum. In general peritonitis more extensive drainage is necessary.

—R—

The Use of the Pituitary Extract in Obstetrics

P. S. MITCHELL, M.D., Iola.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

During discussions before former meetings of this society, so much adverse, unqualified criticism was lavished upon the administration of the pituitary extract in obstetrics, that it occurred to me, an attempt at clearing the atmosphere, should be timely and worthy of consideration.

Had the objections been directed mainly against the indiscriminate prescribing of the

drug, the intent of this paper could hold little claim for the attention of a medical society and likewise, would never have been written.

Without doubt, its unrestricted usage has led to harm and much of the censure was merited as we find in the pioneer experience with everything of value.

I may only add in prefacing that children should never handle edged tools; the pituitary extract is not a blunt instrument free from danger, but a powerful and specific drug possessing a definite indication for service both in time for administration and dosage. Without a strict adherence to this principle, this paper is all for naught.

I hardly need to dwell upon the origin of the drug with which you are all familiar. Suffice it to remind that the pituitary body is composed of two lobes, an anterior and a posterior, the former of which has to do with growth and in some way is quite important to life.

The posterior lobe is the part from which the drug of our subject is extracted.

Aged cattle are the animals used, the product of the young animal being quite unreliable. The posterior body is finely minced, mixed with weak acidulated water, boiled ten minutes, filtered, standardized according to G. B. Roth method and placed aseptically in sterile sealed containers, usually of one cc. each.

The writer has experienced a marked variety in action from the administration of some six different brands. When introduced into the circulation of an animal, small doses merely stimulate while large doses develop violent action upon the parts influenced. Its primary action is upon plain muscles, causing contractions thereof. The most manifest action is observed upon the muscular coat of the bowel, the blood vessels and body of the uterus. The last mentioned is the one in which we are chiefly concerned. However, its action upon the vascular system is quite valuable in shock, especially from hemorrhage or following operations. Its action upon the bowel has made it useful to the surgeon in post operative stasis, in which gas is a vicious factor. Upon the uterus it displays a marked and specific

action. In small doses it stimulates the body to mild contractions while in large doses it throws the fundus into violent and spasmodic seizures. This is so vigorously expulsive in character that should there be uterine contents within, it is violently expelled; if marked resistance is met with, rupture of the fundus or cervical tear is the result.

Many accidents of this character have been reported. On referring to the archives of my memory, on a former meeting of this society I find a surgeon friend saying, "The general practitioner with his pituitrin is keeping the surgeon busy sewing up perineums". That remark was evidently justifiable, but I trust ere this he has caught up with his golf, as I think general practitioners like surgeons profit from former errors.

Perineums have been torn, not from the fault of the drug but from its improper usage; therefore we should not condemn the drug but make its acquaintance. A few yet hold the old credulous opinion that labor should not be interfered with. I can conceive no more defense in the argument that nature should take her course in prolonged labor than for an abscessed appendix to work itself off. In no branch of practice can the physician be of more service if his efforts be judiciously executed. Likewise, it is little less than criminal for an attendant to administer this drug without having familiarized himself with its action, acquainted himself with the mechanism of labor and availed the patient of that knowledge.

It is self evident that it should never be given in the presence of marked mechanical resistance. It should be totally excluded in contracted or distorted pelvises, in hydrocephalis, in breech presentation of multiple pregnancy and in all impossible delivery-presentations. It should never be given in high blood pressure, due to sclerosed arteries. I have, however, administered it in two cases of eclampsia, with high blood pressure, resulting in no ill results, but such is not to be recommended until we know more about that symptom-complex.

Lacerated perineums have been experienced following the use of the extract as well as in the pre-pituitary days, but when occurring as

a result of the drug's action, impropriety was the factor.

The prevention of these accidents is positively within the attendant's power and may be summed up as follows: The attendant should familiarize himself with the drug's action, administer the dosage under proper indication and stay on the job. If these rules are implicitly observed, he will experience no more unhappy results than without its influence.

With danger removed advantages are of value. Experience demonstrates that the normal unrestricted case in the multipara should be delivered in three hours and the primipara in six. Many cases free from mechanical resistance, however, drag many hours due to some incoordination of the pains and uterine contractions.

When prolonged to any extent beyond the normal period, every hour leaves its imprint of exhaustion besides an increasing number of infant stillborns. Quoting from generally accepted authorities in obstetrics, about five per cent of the new born lose their lives in delivery. De Lee states that the greatest danger to the new-born in delivery is interference with its respiratory function. He describes the condition of the child in passage as being a state of apnea, that is without respiration. In a very large per cent of the new-born the attendant finds the cord wound about the child's neck from one to several times. This, essentially retards the mother's blood on its way to the child and likewise obstructs its return for oxidation. It is then quite rational to conceive that the more prolonged the child is en route the more its blood will become carbonized and its dangers for survival increased. Thus from the stand-point of time, it devolves upon us to duplicate nature as nearly as possible and terminate the act in approximately the period used under natural conditions.

Works on obstetrics are generally silent in reference to the administration of the pituitary extract in labor, and apparently critics have taken that as a "cue". Why authors are silent on the subject I know not, because I have positive knowledge that this drug is

being prescribed under the observation of most of our leading specialists.

While returning home from our last session it was my splendid privilege to share a seat with Dr. Pollock of New York, an essayist at our meting and a widely noted authority on obstetrics. I called his attention to the criticisms launched against the prescribing of the pituitary extract in labor during the discussion of papers on obstetrics. I reminded him of having noted that he did not enter into the discussion, and wondered if that signified that he found it harmful or was opposed to its use. His reply was that "it was a very valuable drug if properly handled and a very dangerous one if carelessly handled." Also, he informed me that he frequently found it indicated and when so, he did use it. His reason for not discussing the merits of the drug before the medical society was that it did not enter into his subject.

In his text, I find De Lee almost silent on the subject of pituitary extract, but from the authoritative source of an associate, who was also a former assistant, I was advised that the drug is administered quite extensively in his lying-in hospital

This same authority also informed me that in delayed contraction, before complete dilatation, they administered the drug in minute doses and repeated as needed. These references from good authority encouraged me to investigate its merits and dangers as extensively as possible.

To one isolated from modern, up to the minute, medical libraries, data on the administration of this drug become a problem, as expression on the subject by our text is conspicuous by its absence. Therefore the bulk of evidence here advanced must essentially be a reflection of personal experience and observation.

The dangers and precautions attendant upon the administration of the drug are as follows: All contra-indications above mentioned should be searched for and, if found present, the drug must be excluded. The dosage of a standard preparation is from two to fifteen minims, which may be repeated cautiously if indicated. Indication for repetition is failure to obtain progressive contractions

in thirty minutes from the initial dose of the drug. It should never be given in excess of two to three minims, prior to the completion of the first stage of labor or in cases of a possible uncertainty of position. It should never be administered in other than the O. L. A. except in minute dosage, and then only after the attendant has assured himself of a possible delivery. It should never be administered in a multiple pregnancy, having a breech for the presenting part of the first baby; the reasons are obvious. It likewise should never be administered when a shoulder presents or in case of any impossible delivery presentation. In multiple pregnancy with an occiput presentation, as well as all presentations and positions known to the science to be difficult, minimized doses may be administered and repeated with care. Repetition beyond the third dose accomplishes nothing and may do harm. There is seldom excuse for but one repetition.

Given a uterus, whose lower segment and cervix are engorged, thick and boggy, and in which dilation is meager, the extract may be administered in very small dosage and observed carefully. A cervix of this type gives marked resistance and is readily torn in the presence of uncontrolled uterine contractions.

The action of the drug, in small doses, is fleeting, not lasting beyond one-half to one hour in time and therefore can never do harm. The drug may be administered with value at any time after the cervix has flattened out. I have never seen administration serviceable before the cervix has disappeared.

In cases having high blood pressure due to sclerosed arteries, the drug should be avoided.

SPECIFIC INDICATIONS

Having excluded deformities, abnormalities and all contra-indications, the following are patent: When the presenting part is the O. L. A., the os completely dilated with an atonic fundus, the drug is indicated in full dosage.

Perhaps the point of greatest dispute in pituitary therapeutics is that of administering the drug before the completion of the first stage of labor. This may be safely done with minimized dosage, is frequently indicated and under such circumstances is of great value. Under these conditions, that great unknow-

able institution denominated the sympathetic nervous system, plays an important role. The presenting part crowds its way forward, flattening out the cervix, stretching, teasing and tearing its way through muscle fibers and nerve filaments. The injury and irritation thus done to this intricate association of nerves and nerve ganglia, functioning without a directing head, throws it into confusion. With the woman who possesses a highly sensitized nervous system, the confusion becomes a panic. The first expulsive pressure against the circular fibers of the cervix, supplied by filaments from a sensitive nervous system, surcharges that unorganized plexus with exaggerated and perverted nerve impulses, impossible of interpretation by the consciousness. This leaves the woman in a nervous hysterical state, absolutely devoid of self assertiveness and control.

At this juncture the nervous system requires a balance wheel. Pituitary extract meets this want. In all the literature I have found nothing defining this action upon the nervous system. Under the action of the drug, hypersensitiveness, hysteria and vague flighty pains, give way to seriousness, security and a feeling that she is "getting a hold on things". An immediate change comes over the woman; she becomes a new being. I do not know whether the action of the drug upon the nervous system or her attention being called to her pains is responsible, but the result is definite. Should there be no other indication for its use, this alone should win for it a place in the hall of obstetrical fame.

Sensitiveness to pain varies remarkably in the human race, and in no experience does it become more manifest than in labor. I have observed women wrestle with pain for hours, because they feared the last expulsive act. Authorities are agreed that seventy per cent of all cases of obstetrics present an O. L. A. Experience shows that at least seventy per cent of these drag through a period double the normal time, likewise, when these cases are analyzed, the only restraining influence found is lack of control on the part of the mother, due to reflex disturbances. These all come kindly under conscious control with the proper use of this drug.

Following a close observation upon about two hundred cases in whom this drug was used, I noted that the after-pains are less marked, there were no post-partum hemorrhages, there were no puerperal infections, less catharsis was required for post partum ileus, less purple babies were present and generally speaking the cases have developed out of the puerperal state with a greater degree of satisfaction than before the advent of the drug. I have never experienced a rupture of the fundus, a tear in the vaginal wall or a complete perineal tear under the drug's use. I have had two complete perineal tears without its use. I have experienced less perineal tears with its use than without as I am always fortified for its protection when using the drug. The cervical tears are in about equal proportion.

All who have practiced obstetrics for more than ten years will agree there were many vicious tears before the advent of this drug and many of a type that we do not now see from modern care. So if anyone possesses a positive prevention for tear I hope he will report the same.

Pituitary extract cannot replace forceps but should prevent their usage in many cases. Forceps still hold an important place in obstetrics and will continue to do so till the end of time. Cesarean section will have much more written about it than the pituitary extract because it possesses more of the glamour. Although the cesarean route has been the procedure by choice in far too many cases yet it holds an essential place in a few. If one were to read some surgeons correctly, he would be made to believe that the supra-pubic route would be the selective one of the future. The only case in my experience that even proximated an anticipation of a cesarean section, yielded very kindly to a primary minimized dose of the extract, followed an hour later by a full dose, with the result that even a perineal suture was not required.

To sum up: The drug has a specific indication and a dosage for the indication. It is a powerful drug and should never be given indiscriminately. If given under proper indications and precautions the delivery should be under the control of the attendant at all

times. Surgical and instrumental procedure are minimized. Tears are not increased. Post-partum hemorrhage is lessened, many new-born lives are saved and the mother spared many hours of torture.

The surgeon who sees no obstetrics will piously say, it should never be given because it overworks him in repairing perineums, which elicits our sympathy.

In the face of modern aseptic technique, the gynecologist, in his marble operating room, surrounded by a corps of trained assistants, fortifying him against dangers of sepsis, boldly chooses the more fascinating method—the cesarean section. To the professor who has attained nobility in the profession and may now lie unmolested in his peaceful bed, while a watchful interne and nurse hold vigil, methods to shorten the hours of torture in labor will not appeal. But to him who has sat the whole night through, without where to lay his own head and nothing but vain appeals of suffering to lull his brain to slumber, a method to abbreviate her torture will be a welcome guest. Such is pituitary extract.

The last and only word upon the administration of products of internal secretion has not yet been said by many volumes; instead, it is one of the widest and most valuable fields for investigation.

Pituitary extract perhaps has done much harm, it may do some more, but under the proper handling by an attendant conversant with both its action and the mechanism of labor, I boldly assert, not only is it harmless but it marks the greatest advance in this branch of our profession since the days of Semmelweis.

The Toxaemia of Pregnancy

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Read by invitation, at the meeting of the Lyon County Medical Society, at Emporia, Tuesday evening, Oct. 4th, 1921.

At the meeting of The Kansas State Medical Society in 1918, the writer presented a paper on maternal toxemia, in which the position was taken that the great war and the universal prevalence of influenza were in a

measure to be held responsible for the increase in the frequency of this dread complication of pregnancy, affecting the metabolism of patients in this condition to a peculiar degree.

When your Secretary gave me the invitation to address The Lyon County Medical Society, in looking about for a subject, it seemed that the further discussion of this topic might be valuable, in the light of recent conclusions drawn from the clinical reports of cases seen since 1918. The statement of a writer, in the *Journal of the American Medical Association*, in June, 1921, that the mortality of obstetrics in the United States has increased from 1902 to 1919, in contrast to that of the preventable diseases as tuberculosis and diphtheria, and since the mortality in obstetrics is largely due to sepsis and toxemia, neither of which should be classed as unavoidable, the loss of twenty thousand child-bearing women a year, in the United States, is a challenge to the medical profession which we must take up and meet, so that the reproach may no longer be scattered, throughout the world, that America stands fourteenth in her death rate in child birth.

The remedy is in the hands of each individual in his own community. It simply resolves itself into intelligent prenatal care of all prospective mothers; not only by a perfunctory urinalysis, but by monthly consultation, taking pelvic measurements, blood pressure, examination of teeth, tonsils and all possible foci of infection, in advance of labor. By the rigid application of surgical asepsis at the time of delivery, ninety per cent of morbidity and one-half the mortality can be wiped out.

The results of our last five years as given in this paper show what can be accomplished by a routine technic in the management of toxemia.

The problem shown by the symptom complex which we describe as eclampsia, toxemia of pregnancy or pregnancy kidney, the "nephropathia gravidarum" of Zangermeister has been one of the most difficult which we have to solve and one which deserves the close study of every obstetrician and indeed, of every practitioner doing obstetrics. While these conditions are recognized by percentages, the number of cases is by no means uni-

formly distributed in the community nor by the calendar in the work of the individual.

It is on this account, the importance of the subject being so much appreciated, that it is with no apology that the discussion is again brought forward.

In May, 1917, we began at the Christian Church Hospital in Kansas City an investigation of the subject of toxemia and eclampsia because of the abnormal frequency which we observed in the occurrence of this condition in pregnancy, and this series of cases has now reached proportions which we feel justifies us in drawing conclusions of our own with reference to the disease and its management.

The records show 262 cases of toxemia of which 67 had one or more convulsions.

We are convinced that these cases can all be traced back to an original infection provided only sufficient data are given to enable the investigator to follow the trail to its source.

Teeth, tonsils, appendix are the offending members generally in the order given. However, it is not always possible to make the discovery of the focus which is doing the damage.

Witness the discussion in the Chicago Gynecological Society, December 1920, on the paper of Harold Gibson on "The Later Aspects of Toxemic Albuminuria of Pregnancy," wherein DeLee, Rudolph Holmes, Ries, Bacon, Paddock, Doederlein, Heany and others took part. The difference of opinion was only limited by the number of men who spoke.

We feel that the importance of a definite classification of the nomenclature in toxemia is most essential to results, and then the findings of various obstetrical centers must be crystalized to be worth while, and a standard established as a basis for treatment. Nephritis-pre-existing, toxemia, kidney insufficiency must be clearly interpreted to justify diagnosis and determine method of treatment.

One of the most interesting and important deductions from recent studies of toxemia is that functional kidney tests and blood chemistry based on the theory of alteration in the nitrogenous metabolism are not of great value.

This both Gibson and Talbott assert and our own experience agrees.

We believe that blood pressure, urinalysis showing albumin and casts or their absence, clinical symptoms as to the intake and output of fluids, edema, headache, visual disturbances—the old classical phenomena—are of far more importance in prophylaxis; the post-partum evidence of the placental infarcts then confirms the ante-partum finds of infective invasion.

Dr. John E. Talbott, of Worcester, Mass., in the June issue of *Surgery, Gynecology and Obstetrics*, offers some very conclusive testimony as to the infectious character of toxemia and his reasoning is most thoroughly convincing that he has demonstrated the course of the toxemia or pre-eclamptic condition to be coincident with a chronic sepsis. He bases his contention on the appearance of the white infarcts in the placenta. The maternal blood stream carries the bacteria which causes a local thrombosis in the blood vessels supplying the placenta, the resulting infarcts being the evidence.

This is one of the most important discoveries in recent obstetric literature, if corroborated, as it will explain not only toxemia but obscure bleeding and some abortions as well.

The gross appearance of the infarct is macroscopically an area of placenta tissue hardened and whitish, usually occurring along the edge of the placenta but it may be found more central and occurs either in the maternal or foetal side of the placenta. It often extends along the edge of the placental border for the distance of several centimeters. The size varies, the largest being that of a small marble, the smallest hardly perceptible. They are variable in number and may be very few or so general as to almost cover the surface of the placenta.

According to DeLee and Dieulafoy, who have described most accurately these phenomema, they consist of hemorrhagic foci which in the recent state contain free blood, generally black in color and of a mucous character and it is always interplacental.

This becomes pale and finally reaches the white stage. Incised, the infarct shows fibrin more or less dense and homogeneous, some-

times disposed in concentric layers. These hemorrhages may be followed by a retro-placental bleeding of sufficient severity to cause the death of the mother.

In the same placenta will be found infarcts in all stages of evolution of the hematoma. The final change is a sort of coagulation necrosis, the advanced stage shows a mass of fibrin with only traces of the villi of the chorion remaining. Evidences of obliterating endarteritis and peri-arteritis are sometimes evident. Thus, we accept the infarct as a pathological element of the placenta.

The infarct is most frequently associated with toxemia, chronic nephritis and syphilis, demonstrating its pathological character.

Young, of Edinboro, quoted by LaVake, claims the infarct to be of thrombotic origin, the maternal blood vessels first infect and the result being an autolysis following the death of the part supplied. This he proved by isolating from healthy placenta soluble materials which being injected into rabbits caused convulsions and focal necrosis of the liver and kidneys.

Arguing from the fact that thrombosis in other parts of the body is of infectious origin, LaVake concludes that the main contributing cause of the infarct is a slowing of the maternal blood stream, following a low grade infection not of sufficient virulence to be noticed clinically. LaVake then demonstrates that in every case of eclampsia there is a focus of sepsis, acute or chronic, which theory is also contended by Talbott of Worcester. Acute infections of the mouth and throat have been followed even by miscarriage.

If then these statements can be proven, it is logical to assume that the infarct is the result of a hematogenous infection at the placental site. Then the occurrence of the infarct in the placenta is a record of the infection through the maternal blood stream, acute, or an exacerbation of a chronic sepsis.

The prevalence of toxemia in the recent widespread waves of influenza have been universally recognized, but not the relation of the two phenomena to each other.

Since we have been giving more close attention to the teeth, it becomes clearer that many of these toxemias are to be traced to in-

fectured areas in the teeth. Whether the cases of acute appendicitis occurring in pregnancy are primary or subsequent to other focal infection is not absolutely determined, but in my opinion many of these begin in the teeth or tonsils, then affect the appendix and by being carried through the maternal blood stream are manifested as toxemia.

This carries out the theory of Rosenow that appendicitis is frequently of hematogenous origin. The infarct in this case is the result not of the lesion of the teeth but follows the appendicitis. The fact that frequently an acute appendicitis is followed by miscarriage or a vaginal discharge of blood may be taken in connection with this phenomenon as corroborative evidence.

In no other situation is the attending obstetrician so morally bound to be alert to catch warning signals as in toxemia.

The element of time is so important that a short interval may develop disaster. Hypertension and albuminuria are often so rapid that a few hours before delivery they are not discernible. Quierel recently said that in a pregnant woman of previously normal tension if the hypertension reaches 180 or 190 and persists, eclampsia is to be feared as imminent.

The question of recurrence of toxemia in a subsequent pregnancy generally comes up in the mind of the eclamptic. It has been our experience that while occasionally the woman may go through another pregnancy without incident the tendency is for her to have the toxemia repeated in each pregnancy.

Prematurity we find one of the most frequent complications of toxemia, although our foetal mortality does not reach that of Barsch—47 premature infants still born out of 216 cases, or about 25 per cent.

Yeppoe in a very recent monograph says that of premature infants born alive and reaching school age in a study of 668 cases the mortality was over 50 per cent. In 55 per cent of the premature infants in toxemia operative delivery was necessary.

The distinction between kidney type of eclampsia and the liver type as made by De-Lee must be kept in mind. The hepatic type, jaundiced, going into coma suddenly with or without convulsions; the nephritic type slower

in developing, albumin usually present, hypertension marked—more usually convulsions and of a severe character—many of the latter have had scarlet fever in childhood or frequent attacks of tonsillitis. The latter case is more likely to improve and may apparently recover but with some crippling of the kidneys. The former is the type which is most frequently fatal even if it does not go to the degree of acute yellow atrophy.

We must insist that clinically all these manifestations are only different in degree so far as the patient is concerned. The gravity of the case must be determined, and upon this conclusion the method of treatment based.

Eclampsia, which still claims the death rate of twenty-five to forty per cent by average of statistics, was a long time ago designated by Zweifel as the disease of theories. We have not been able to reach a basis up to the present day where we could absolutely prove its origin or trace its etiology. The signs and symptoms are, of course, familiar and the findings at autopsy—liver, kidneys and brain necrosis—all have seen. From these facts we gain the clue upon which our plan of treatment is founded, but while experimental evidence and grouped phenomena are helpful, every man draws his own conclusions from the cases he has seen and applies them according to his own mode of reasoning which may be a temporary theory or it may become an obsession.

As witness of the statement that toxemia is yet not without the bounds of theory, one's attention is called to a most valuable article on "Treatment of Eclampsia," by Dr. Clifton Edgar in the Journal of American Medical Association of April 27th, 1918. Dr. Edgar says, "A one time advocate of active medical and surgical treatment, and bitterly opposed to morphine in eclampsia, experience in the last five years has radically changed my view and teaching. But I also am still uncertain whether morphine increases infant mortality. And also a one time enthusiast in the free use of veratrum viride in eclampsia, I frankly confess to having changed my views. I fear its shock producing effect, although I still occasionally employ it in small doses in selected cases." In other respects Edgar's

treatment varies but little from our own established technique.

In a paper by D. M. Erwin, of the Department of Pathology, University of Cincinnati, are the results of some striking research work in regard to the relation of blood pressure to convulsions—*J.A.M.A.*, April 27th, 1918. His conclusion is that: "The chemical substance in the blood only produces edema. The height of the blood pressure over the intra-cranial is the margin of safety. When this margin is at a small positive quality the brain must undergo some change. The vaso motor center fags. As a consequence the blood pressure which has been maintained as high as possible drops. The intra-cranial pressure now becomes greater than the blood pressure, then the margin is negative; the pupils dilate and convulsions comes on; the sharp tense contractions of the muscles play a vicarious part by forcing the blood pressure from the periphery and raising that in the centers until the margin is again positive. With this renewed blood supply the centers again take up for the time, their work."

Knowing that next to sepsis, eclampsia is the most deadly of all obstetric complications, every woman has been, on coming under our observation examined with the realization that her symptoms may possibly suggest at any time that she is a pre-eclampsic. As early as her pregnancy is recognized, blood pressure, eye symptoms and urinalysis are made a routine; the teeth and tonsils inspected for foci of possible infection.

The etiology of eclampsia as formulated into a table of relative values is as follows:

1. Failure of elimination of toxins, those in the early months are doubtless due to the placenta and in the second half of pregnancy doubtless to the excretions of the foetus.

2. Resulting from pressure and from stasis with a decrease of normal power of maternal oxygenation, thus interfering with lung expansion, and with the action of the heart, we have an asphyxia of greater or less degree.

A woman who is pregnant has thus thrown on the excretory organs a double load.

The patient who has had a previous scarlet fever or some similar disease, is handicapped in elimination of bacteria or their toxins,

which emanate from such foci as infected tonsils or teeth, or from colon bacilli. These may further damage her resistance.

The basic feature of etiology is from the placenta or the foetus. The degree of overwhelming by the toxin is dependable on the two conditions—first, rapidity of the generation of the toxins, and second, the compensatory ability shown by the organs of elimination to throw off the poison.

Beyond question there are depressing effects from the presence of the toxin shown by the lesions in kidneys, liver and heart. These add to the risk of the pregnant woman.

The foetus makes still heavier demands on the powers of oxygenation on the part of the mother in the later months of pregnancy and having been reduced by the stasis of the abdominal organs resulting from pressure through the diaphragm, this demand is followed by decreased expansion of the lungs and an interference with the cardiac rhythm. This causes a maternal asphyxia of mild type which again lessens resistance and increases the damage to kidneys and liver. Pyorrhea or pyelo alveolitis should place the attendant on his guard against his patient developing a later toxemia.

A case of eclampsia will always demonstrate some focus of infection before it develops and that case which even under careful observation up to the week of delivery should show no signs but the trace of albumin, higher blood pressure and nervous manifestations. In these cases there are evident foci of infection which do not clear up.

Then other cases with temperature manifested before any examination or interference has been done, are in still a third class, usually multiparae, a number of cases of whom develop toxemia having had previous normal pregnancy and labor but a definite history of infection since the last labor. The bowels should move once daily. This removes excretory products, bacteria and toxins from the system, taking stress from the kidneys and saves injury to the intestine, which would result from large hardened masses of feces, trying to pass the unusual obstruction, and pressure, and thus result in infection of the blood stream.

The hematogenous kidney, which has been accurately diagnosed and successfully treated by surgical procedure by Dr. Howard Hill, is ample evidence that colon bacilli do gain access to the blood stream, and cause infection of the kidney, through infarcts in its deep structure.

Pressure effects on the bowel also disturb the normal balance of bacterial growth and result in the development of products particularly toxic in nature. Bowels are kept open by fruits, coarse cereals and vegetables; salines when required.

Six and eight glasses of water and milk should be taken. These toxemic patients fare better by eating only one meal a day. Exercise and massage to promote general circulation are endorsed. Hemoglobin should be estimated and iron in the food or by Bland's mass given if needed. The urine should be examined during the first six months, once a month; the last three months, twice a month. If any symptoms arise examination should be made daily.

The patient is always instructed to notify her attending physician if any danger signals come up; unilateral headache, edema, disturbed vision, epigastric pain or nausea.

The asphyxia raises the blood pressure of the adrenal glands and as consequence into the blood stream is thrown an extra amount of adrenalin. In consequence of the concentration, acidosis from the increase of acidity results. Associated with this asphyxia and output of adrenalin is the increase in the rise of blood pressure and increased coagulability of the blood. These always occur in eclampsia in the later months.

Now, accepting this rational theory of the production of eclampsia, we have tried to standardize our plan of prophylaxis and treatment as follows:

1. Diet which shall be of non-irritating food.

2. Elimination encouraged by kidney, bowels, skin. Intake and output of fluids is a most important routine and must be shown in a daily consolidate report.

3. All foci of possible infection, tonsils, teeth, kidneys and bowels should be discovered and eradicated.

4. Deep breathing by aids to general circulation and by fresh air avoids danger of asphyxia.

5. Free exhibition of alkaline salts and food anticipates acidosis.

6. *Veratrum viride* by a system devised to lower blood pressure, reduce the pulse and aid diaphoresis.

7. The emptying of the uterus as a therapeutic measure to be done in the way least conducive to shock is indicated as soon as prophylactic measures fail. Every one at all familiar with the toxemia of pregnancy recognizes the marked improvement of the patient's condition following the removal of the products of conception.

Most eclampsias occur in primiparae in hydramnios and in multiple pregnancy. These are, of course, patients subject to the greatest pressure and most frequently suffer from asphyxia.

It is to be remembered that in chloroform poisoning and the lesions from certain types of eclampsia, the liver and kidneys are identically involved. From this experimental discovery of Arthur Dean Bevan which was shown in an address given before the Jackson County Medical Society at the Kansas City General Hospital in 1913, we conclude that chloroform and eclampsia produce identical injuries and that chloroform therefore adds to the danger of the eclampsia and should never be used as an anesthetic in these cases. The fact that the asphyxia from chloroform circulating in the blood increases the lesion suggests that the diet which protects the liver cell in chloroform poisoning should be one generous in carbohydrates and correspondingly low in fats and proteid.

The identity of the kidney lesion of sepsis and eclampsia have long been observed. Martin Fisher in his work on edema and acidosis advises the giving of salts which best overcome edema, as acidosis is quite frequently associated with toxemia. Thus we can see why magnesium sulphate is so often the resort in eclampsia and the reason for its happy results in these cases where it has been pushed.

That eclampsia may be due to edema of the brain is the contention of Zangermeister writing on edema. In view of the relation of focal

infection to eclampsia and pre-eclamptic toxemia great stress should be placed on the locating of all foci of possible infection.

The teeth especially should be examined and these patients should be advised to consult their dentist throughout pregnancy, and be under his care. All visible signs of focal infection and destruction must be treated. If a patient has a history of rheumatism or muscular pains, teeth in which nerves have been killed should be x-rayed. Teeth which have been crowned are especially under suspicion. "Uneasy lies the tooth which wears a crown." The teeth involved should be removed when symptoms of local systemic absorption are observed. To avoid the severe auto-vaccination resulting from the removal, it should be done one at a time. All this is prophylaxis and may prevent toxemia, hemorrhage and abortion. Since sepsis is found to produce nephritis in the woman not pregnant, how much more likely it is to result in the pregnant patient.

The routine treatment of this group of cases has been milk diet or whey, cereal, sugar and buttermilk, sulphate of magnesia until copious results, elimination by liberal quantities of water, rest in bed and means of inducing sleep in the pre-eclamptic subjects.

Blood pressure and eye symptoms, together with intake and output of liquids, are carefully watched and recorded, the latter summed up in 24 hours contrast. If the blood pressure has been persistently over 150 the advent of eclampsia should be expected and if rapid pulse and headache were also in evidence and the pressure remains at 180, the emptying of the uterus has been considered. The double benefit of this maneuver is that it not only relieves pressure but it also immediately provides for the oxygenation of the child by its own mechanism. A method which will be least shock to the nervous system and do least damage to the soft structures of the pelvic viscera should be selected. In general this is by the Voorhees bag rather than by digital dilatation. We have found these patients peculiarly susceptible to sepsis and if forcible manual dilatation is the resort, the cervix being torn into ribbons, not only is the resulting scar an evidence of wreckage of structure but

immediately the torn parts of the cervix, hanging into the vagina, invite septic infection from outside and greatly increase the mortality.

Unless these patients die from results of necrosis of liver or brain, the fatality is usually from sepsis. In fact one of the two deaths in the recent series was due to infection, the patient having been delivered before coming into the hospital. The first seizure was a half hour post partum. Death followed from general peritonitis and myocarditis.

In the Chicago Lying-In Hospital, the use of hot packs has been abandoned by Dr. De Lee, but we still are using the electric pack, where a dry hot skin with blood pressure of 180 or over indicates the approach of convulsion. Solution of soda bicarb, by mouth or by proctoclysis is depended on as the fluid to preserve an equilibrium between intake and output. All our patients were given ether; in no case was chloroform allowed. Chloral by rectum as a routine sedative was ordered, as it does not produce poisoning as chloroform, contrary to assertion of some investigators. While an occasional dose of morphine 1-8 and scopolamin 1-100 or 1-200 is given, we do not use the Stroganoff method. However, if it will remove the danger of nephritis in the non-pregnant, LaVake asks the pertinent question as to why it is not a prophylaxis against eclampsia, sepsis, miscarriage and accidental hemorrhage in the pregnant woman. He asserts that he has not seen a case of eclampsia in which a focus of infection and usually a marked one, could not be demonstrated.

Krause, of El Paso, in a paper before the Jackson County Medical Society, claims that in all the six eclamptic subjects he has conducted post mortem, the presence of colon bacillus in the kidney was proven, and he associates eclampsia with colon infections, a suggestion to which his laboratory findings give evidence in his experience.

Hopkins Gardner, *Am. Jour. Obs.*, 1912, conducted experiments which conclusively dispose of the statement that chloral produces the same liver necrosis as chloroform. He demonstrated also the fact that chloral hydrate produces no histological kidney lesion.

We have discarded all attempts to use anesthetics in the convulsion as being futile.

Oxygen in the convulsion has been used as an aid to overcoming asphyxia. No violent effort should be made to restrain the patient. Magnesium sulphate to free catharsis; veratrum to keep pulse under 80. If conscious the patient is given chloral 20 grains, and bromide 40 grains, by mouth; otherwise by enema—Chloral 30 grains, bromide 1 dram, in 4 ounces of warm milk. Murphy drip, soda bicarb. 2 per cent, glucose 6 per cent, should be ordered. If this is rejected, soda solution by hypodermoclysis, care being exercised to have it sterile. Alternately every 8 hours, high colon irrigation and hot pack, the latter only if patient is absorbing plenty of fluids.

No bleeding is done except when especially indicated, as it has been found phlebotomy is of no advantage to the average patient. One cannot tell how much blood the patient will lose at delivery. Blood pressure is much better relieved by veratrum m.v. every 4 hours to m. xv. every 4 hours for pulse over 100, and m. iii for pulse over 80 and under 100. Cases not bled recover faster than those bled.

However with a dilated right heart and beginning edema of the lungs and high blood pressure, bleeding is certainly indicated. These symptoms absent, it is not.

As against the Stroganoff method of large doses of morphine, we find emptying the uterus more safe. An initial dose of morphine lessens excitement and may be used. When it is used to slow respiration, morphine increases asphyxia and the danger to the patient in consequence. However, Stroganoff has some very wonderful and attractive statistics in favor of his treatment.

It is remembered also that several years ago our friend, Dr. Gustav Zinke, of Cincinnati, was visiting the General Hospital and advised "hands off" in a case of eclampsia, saying a certain percentage of these die regardless of treatment. He, with Hirst, has long been a champion of the conservative handling of eclampsia, discouraging the emptying of the uterus as meddling midwifery.

As to the heroic morphine plan of treatment, this was first advanced by Zweifel of Leipsig, and then revived by Stroganoff, the

Russian physician, and now has been given an endorsement by a very remarkable series of favorable cases by Ross McPherson, of the New York Lying-In. Our own experience is not sufficient to justify our condemning this method, but we hesitate to employ it in the face of the experience with the H. M. C. tablet, which was for several years in vogue among some physicians whose vade mecum was the pamphlet literature of the drug manufacturers who flooded the profession with recommendations of the hyoscin morphine and cactine combination. Several deaths of infants came under observation in cases where no visible reason existed for the mortality save the morphine. It has always been our *modus operandi* to allow more adventurous souls to do the pioneering in choosing drugs or methods as yet untried and to select after the demonstration has proven that the remedy is worthy.

McPherson gives $\frac{1}{2}$ grain morphine on admission of the patient in convulsions. The blood pressure is taken and if over 175 she is bled sufficient, the phlebotomy aiming to bring the pressure down to 150. The stomach is washed and 2 ounces of castor oil poured down the tube when the lavage is finished. The next procedure is a 2 gallon colonic irrigation of glucose 5 per cent. McPherson holds that by repeating the morphine in $\frac{1}{4}$ grain doses hourly the respiration may be kept at 8 per minute, convulsions cease and labor sets in to be terminated voluntarily or by low forceps.

It is a matter of regret that the offer of Stroganoff to come to America last year and to demonstrate his theories could not be accepted. A number of us in the Association of Obstetricians and Gynecologists were willing to contribute to the expense, but it was found impossible to secure any hospital with a sufficient toxemic population to carry on the method with a time limit which would make the plan feasible. However, to so deeply narcotize a patient as to force the mother's respiration down to six, seems a serious risk to the unborn child. One case nor twenty cases prove the contention. Let the demonstration run into a thousand and then the profession must accept the idea.

All other measures failing, the final resort is to empty the uterus. Technique which involves least shock:

1. Preliminary dilatation gradually by Hegar's dilators up to No. 20.

2. Voorhees bag No. 4, if at term—introduced by Reed's method—cigarette roll held by Pean's forceps.

3. Labor being established, the patient is kept under scopolamin semi-narcosis until ready to deliver and the addition of a few whiffs of ether during the perineal stage.

4. If pains are not promptly inaugurated, weight is put on the end of the tube of the bag and suspended over the foot of the bed to increase tension.

The Voorhees bag introduced by the method mentioned has seldom failed to do the work. We have never had a rupture of the membranes from it, nor have we had a resultant sepsis. The choice of method must of course be determined by the condition of the patient and the experience of the operator.

It is seldom necessary to use an inhalation anesthetic in introduction of the bag.

There is one class of cases which are peculiarly dangerous, and in which it must be recognized that the induction of labor or any waiting policy is not to be trusted. This is the fulminating type in primiparae, where one convulsion follows another in rapid succession.

If in these patients the cervix is hard and long, the severe effects of continued pounding labor must force the toxins into the blood stream in such violence that her resistance is broken down through the accession of the toxemia, and the patient will probably die if she goes over three or four hours. In case the cervix is not softened, the delivery in this case should be by cesarean section.

Our duty to these women is two-fold; first, we want to spare their lives, and second, the dictates of the Catholic church as well as those of humanity appeal to us to spare the lives of the unborn children as well as the mothers who are imperiled by the overwhelming storm of toxic material which is so rapidly menacing both victims.

The general practitioner cannot do a cesarean section in the home. He must therefore

concentrate on his medicinal measures, not attempting surgical interference unless it can be done in a rapid and harmless way.

Broadhead concludes from his cases and from a survey of the literature that in a large percentage of cases cesarean section is not justifiable with a maternal mortality of 16.1 and a foetal mortality of 16.5.

If the cervix is not softened we must choose between *accouchement force*, a dangerous expedient, producing shock and laceration, inviting infection on the one hand, and on the other hand doing a cesarian section with the added risks involved by the hysterectomy, which are by no means inconsiderable. In 1916 Dr. Franklin S. Newell, of Harvard, has recorded the results of 100 cesarian sections done within 40 miles of Boston, not from published reports, but from private information.

The startling discovery is laid bare that where patients have been subjected to repeated examination and frequently ineffectual attempts made to use forceps and to do version, and then the section is done, that the mortality is practically 100 per cent. No doubt from such figures that Rudolph Holmes has grounds for his warning against indiscriminate cesarian section as a last resort. It has its place as a selected procedure in certain identified cases of eclampsia and they are limited.

G. Rossier, at the dedication of the new maternity of Lausanne, said that Dührssen vaginal cesarian had reduced the Lausanne maternal mortality from that of 28 in 1902-17 to 21 in 1919. Now Rossier comes back to bleeding and morphine. He quotes Zweifel of Leipsig, who says we are traveling in a circle like a squirrel in a cage, but Rossier very logically replies, "No, we are like one going up a spiral staircase step by step but always nearer the top of therapeutic results."

Including the 51 cases already reported, since May, 1917, we now have 262 cases of toxemia of which 68 suffered at least one convulsion.

The maternal mortality is six, or 2.2 per cent. If we include only the number which had convulsions the percentage is 8.8. Two of these had pre-existing nephritis.

The infant mortality is eighteen, or 6.8 per cent.

If, however, we exclude the premature infants, and we believe that the foetal mortality should not include cases where eclampsia comes at the sixth or seventh month (as in this instance, we are striving for the life of the mother whose interests are, of course, paramount), the foetal mortality is eleven, or 4.2 per cent.

In those cases which are near term and where the infant has a fair chance in the struggle, we commend these results which to us seem most gratifying.

At the present time no technique has appeared which would appear more promising as regards either mother or child.

The question to be solved in the individual case is the method of early treatment, prophylaxis—discovery of signs of infection.

Eradication of foci and constant watching of patients during pregnancy will undoubtedly go far toward reducing the lamentable morbidity and mortality in this disease, which has always been one of the dreaded foes of the prospective mother.

—R—

LAW FOR THE DOCTOR

LESLIE CHILDS

Physician's Liability for Acts of His Partner

(Copyright 1919, by Leslie Childs.)

The partnership relation, while pleasant and profitable at times, frequently carries with it an element of danger. Because, it is fundamental that one partner is liable for the acts of the other, if committed within the scope of the business.

In the professions, partnerships are met with, in proportion to the numbers engaged, perhaps more frequently than in the commercial world. Professional men presumably are slower to avail themselves of the advantages of a corporate name, which in their case also presents some difficulties and disadvantages, that are entitled to consideration.

This is particularly true of the medical profession; some jurisdictions questioning their right to incorporate, and, in addition their relationship with their clientele being of such a personal nature, that it is difficult of em-

bodiment in a corporate name. Possibly in a great measure because of this, partnerships composed of physicians and surgeons are quite common; therefore, the question of partnership liability becomes, to them, one of great interest and importance.

There are a number of interesting cases in the books bearing on the question, but *Haase vs. Morton*, 138 Iowa 205, is probably as clear a case of partnership liability relative to a professional partnership as they contain. And it might also be termed a borderline case, and probably represents the limit to which the courts will go.

The facts were in substance as follows: William M. Morton and L. B. Morton were physicians engaged in the practice of their profession under the firm name of Morton and Morton. Dr. William M. Morton was called upon to attend the plaintiff professionally.

After an examination he determined on an operation, to which the plaintiff consented, and suggested that it could with greater safety be performed in a hospital. The plaintiff also consented to this and William M. Morton made the necessary arrangements for hospital accommodation.

In conducting the operation, Dr. L. B. Morton administered the anesthetic, and William M. Morton performed the operation; after which William M. Morton left the operating room for the surgeon's dressing room, leaving L. B. Morton and the nurse to attend to the removal of the patient to her private room.

This private room was on the floor below the operating room, and the patient was placed on a rubber-tired car and propelled to the elevator shaft. Arriving there they found the elevator down and the shaft open. Dr. L. B. Morton and the nurse, in attempting to summon the elevator man, left the car for a moment, and it rolled into the elevator shaft and fell, with the patient on it, a distance of about fifteen feet. For injuries alleged to have been received from this fall, suit was brought against Morton and Morton as a partnership.

The trial resulted in a judgment against both doctors in the lower court, and an appeal was taken to the supreme court. The defendant, William M. Morton, denied liability on

the ground that whatever liability existed rested on the act of his partner, as he was not present at the time; also, that the removal of the patient to her private room was not within the scope of the business of the firm.

The supreme court in passing upon these contentions said in part:

"While it is shown that neither of the defendants owned or controlled the hospital, it does appear that they made all arrangements for plaintiff's stay there, and a jury would be justified in finding that the defendants as part of their employment undertook to care for plaintiff from the time she entered the hospital until she was ready for discharge therefrom. And while this might not ordinarily include the work of the hospital employee's the doctors might assume the duty of returning the patient to his room, and in such event each member of the firm would be the agent of the other in carrying on the work.

"It is fundamental that each partner is the agent of the firm while engaged in the prosecution of the partnership business, and that the firm is liable for the torts of each, if committed within the scope of the agency."

The court then affirmed the judgment, there being however one dissenting opinion.

But it must be remembered that to charge one physician with the acts of another the partnership relation must exist. The occupation of a common office will not make them partners; neither will the working together on a case as in consultation. And unless there are some very potent reasons for forming such a relationship it is a status that should be avoided.

—R—

BELL MEMORIAL HOSPITAL CLINICS

The Clinical Pathological Conference

H. R. WAHL, M.D.

RUPTURE OF AORTIC ANEURISM WITH ADHERENT PERICARDITIS

The patient was a man about 38 years old, who entered the hospital complaining of weakness, difficulty in getting his breath, and swelling of the abdomen. He said that the symptoms began two weeks before, fol-

lowing an attack of muscular rheumatism. This is associated with severe abdominal pain, particularly marked about meal time. He said that his pain was worse in the recumbent posture, than when sitting up. He had occasional vomiting and considerable coughing.

The past history contained several points of considerable interest. The patient had been irregular and careless in his habits. He was a chronic alcoholic for 15 years. He had influenza two years ago, followed by dyspnea and chronic cough, which became worse at night; this seemed to have persisted ever since. He had an attack of gonorrhea, also a hard chancre and buboes 16 years ago. There is no history of any definite treatment for the later.

Physical examination on admission showed a poorly nourished man, whose right chest was almost entirely dull, the dullness extending to the angle of the scapula. Dullness was also noted on the left side. The cardiac dullness extended to the axillary line on the left, and two inches to the right of the midline. The heart sounds were faint and distant. The upper abdomen was full and distended. There was moveable dullness in the flanks. There was also some tenderness in the epigastrium. The knee reflexes were absent. The systolic blood pressure was 110. Over the aortic area, the first sound was replaced by a murmur, the second sound seemed to be more distant than usual. The breath sounds were diminished below the right scapula. Crepitant rales were heard in the right axilla.

The patient remained in the hospital about six weeks. Shortly after his admission a diagnosis of pericarditis with effusion was made and 500 cc. of a very bloody fluid was aspirated. This fluid had a specific gravity of 1.027. Later a second aspiration was made, and bloody fluid was obtained with a specific gravity of 1.048. This fluid did not clot on standing. The x-ray of the chest showed a large mass over the base of the heart, apparently continuous with with a markedly dilated pericardial sac. Clinically, apparently there was fluid present in all of the serous cavities. There was no edema or swelling

of the feet, nor was there any distention of the superficial veins. Cyanosis was not very marked. Wassermann reaction was strongly positive. The blood and urinary findings were normal. A subcutaneous injection of two mg. of tuberculin resulted in a typical febrile reaction, suggesting the presence of an active tuberculosis.

The clinical diagnosis made was polyserositis, probably tuberculous in origin. The patient had considerable coughing and developed edema of the legs shortly before death. Early one morning, following a sudden turn or movement in bed, he complained of a severe pain in the right chest followed by great difficulty in getting his breath, weakness, unconsciousness, and death a few hours after the on-set of this first pain. The suddenness and character of the symptoms just before death of the patient made the physician suspect that there was an aneurism with a rupture. An aortic insufficiency was also thought to be present as well as a pericarditis with effusion.

Permission for complete autopsy was not allowed, but examination of the chest was granted. As soon as the right pleural cavity was opened a large amount of bloody fluid welled out. The right lung was compressed to the mediastinum and the pleural cavity filled with bloody fluid and soft blood clots. There were about 700 cc. of fluid in the right cavity in addition to the clots of blood. The left pleural cavity also contained an excess of fluid, about 400 cc. of brownish red character, but did not contain any blood clots. The pericardial sac was considerably distended especially to the right where it extended 2 to 3 inches to the right of the median line. This extension seemed to be more marked toward the base of the heart than down toward the apex.

We have here the thoracic organs, which were removed from this patient. You will note that the heart, the aorta, the lungs, and esophagus are all in one specimen just as removed from the chest. You will note also that the pericardial cavity was entirely obliterated, no fluid whatever being present within this cavity; also that the pericardium and the heart is enormously enlarged, the

heart with the attached aorta weighing over 1200 grams. In cutting into the wall of the heart we find that the parietal pericardium can be torn off from the visceral pericardium with some difficulty. We also note that both layers are markedly thickened, being from 2 to 5 mm. in thickness, and that the inner portion is composed mostly of fibrin which has in many places a dark red color due to infiltration with blood. Furthermore, this inflammatory exudate over the surface of both layers of the pericardium can be, in certain places, torn off, but this tearing off always leaves a ragged, roughened surface underneath, indicating that there has been considerable organization of the exudate. You will also note that to the right and near the base of the heart the pericardium is largely covered with a rounded sac, measuring 12 cm. in diameter. Furthermore, that the inner and anterior surface of the right lung is adherent to the lateral surface of this mass and that this mass is firmly attached to the base of the heart. On further dissection of this mass we find that it seems to arise from the root of the aorta. The outer surface of this mass is smooth and on opening, is found to contain some blood clots. Its inner wall is very irregular, roughened, wrinkled and puckered. It shows a few calcified plaques. The wall of this sac varies considerably in thickness measuring from 1 to 4 or 5 mm. in thickness in different areas. The inner surface of the sac is not only roughened with several irregular puckered areas, but shows several large irregular ragged ulcers. One of the latter is partly covered by lung tissue, and is perforated showing an opening about 5 mm. in diameter. The lung tissue about this area is intensely infiltrated with blood, this probably representing the perforation of the aneurysmal sac. On tracing the interior of this cavity down at the other side, we find that it opens into the ascending portion of the thoracic aorta. The opening is about 2 cm. in diameter and is situated 1 cm. above the aortic valve. We also see that the carotid, innominate and subclavian arteries are flattened out along the side of the sac. The latter presses somewhat upon the trachea, which, however, shows no evidence of erosion.

The heart itself is very much enlarged and flabby. The musculature cuts very readily and has a pale reddish brown color. There does not seem to be any marked dilatation. The valves of the heart show some sclerosis and thickening and they are more opaque than is usual. The valvular rings were distended more than is usual. The wall of the heart is almost twice as thick as is normal. There is very evidently a marked aortic insufficiency, for when the valves were held together they did not close completely. The thoracic aorta was considerably thickened and its surface appeared very much like the inner surface of the wall of the sac. It is puckered, wrinkled and scarred, and has many depressed thinned-out areas, and presents a typical picture of a syphilitic aortitis.

A section taken through the wall of the aneurism and the aorta proper shows a typical perivascular lymphocytic infiltration of the smaller vessels supplying the media and adventitia of the artery. The picture is typical and is said to be pathognomonic of syphilis. In addition the section taken through the pericardium shows a considerable layer of fibrin containing many red blood cells and large numbers of fibroblasts and capillaries forming well advanced organization of the fibrinous exudate. This illustrates the formation of adhesions between the pericardium and the heart, and, in this particular instance, the obliteration of the pericardial cavity.

Thus, we have a large sacular aneurism arising from the ascending arch of the aorta with a rupture into the right pleural cavity. This was associated with an adhering fibrinous pericarditis, which probably bore no direct relation to the aneurism, except possibly a mechanical one. It is quite probable that the hemorrhagic character of the fluid removed from the pericardium at the first aspiration was due to the aneurism.

The clinical diagnosis of polyserositis of a tuberculous origin, requires some explanation. We should note that when the fluid was aspirated the first time a large amount of bloody fluid was taken from the pericardial cavity. One of the most common causes of a bloody fluid either in the pleural or the pericardial cavity is tuberculosis. This, in addition to

the positive subcutaneous tuberculin test, gave good reason for the conditional diagnosis of tuberculous polyserositis. Yet at the autopsy nothing of a tuberculous nature was found; this would indicate that a positive subcutaneous tuberculin test is not always to be relied upon. Even the x-ray did not help to explain the real condition, though the appearance of the x-ray can be accounted for by the results of the autopsy.

Aspiration of pericardial fluid was made on two separate occasions. In the first one the specific gravity was 1.027, in the second one, 1.048; the latter seemed much more like blood than the former. The specific gravity is rather interesting in that the second specimen apparently was due to the needle passing directly into the aneurysmal sac, and drawing out mostly blood, the normal specific gravity of blood being 1.054. That there was considerable hemorrhage in the pericardial cavity is shown by the character of the fibrinous exudate on the pericardial surfaces, the exudate being markedly infiltrated by red blood cells. In other words the first aspirated fluid was probably made up mostly of a serous exudate into which there has been a secondary hemorrhage, the specific gravity being much lower than that of blood.

The clinical diagnosis of pericarditis with effusion, contrasted with the pathological findings with a completely obliterated pericardial cavity needs some explanation. It is probable that the aspiration of 500 cc. of fluid from the pericardial cavity made when the patient first entered the hospital allowed the two inflamed surfaces to cohere, thereby facilitating the organization of the inflammatory exudate from one membrane to the other and obliterating the pericardial cavity. Herein is a reason for a certain amount of caution in removing all of the pericardial fluid in effusions, in as much as the effusion often acts as a buffer preventing the formation of adhesions and keeping the two inflamed surfaces apart. The development of the regenerating tissue and the histological appearance of the section indicate that the organizing process was about three or four weeks old, which would be expected from the clinical history. It is quite likely that only the rupture of the

aneurysmal sac saved the patient from further and more serious cardiac difficulty, because of the formation of firm adhesions with the pericardium and mediastinum.

Aneurisms occur most frequently in some portion of the aortic arch. Those that arise from the ascending arch frequently do not present any definite signs or symptoms diagnostic of an aneurism, and this is what happened in this particular case. Very frequently such an aneurism is only recognized by the help of the x-ray though in this particular instance the pericarditis with effusion obscured the x-ray diagnosis.

The cause of an aneurism is anything which produces a mesarteritis. The chief agent which produces this inflammatory condition of the artery is without doubt syphilis, though there are other factors which may also produce it. This is particularly true of aneurism occurring in young men, for it is generally regarded that an aneurism occurring in a man in the thirties may be regarded as presumptive evidence of syphilis. Furthermore syphilitic aortitis is often more intense in the first part of the ascending aorta, the site of the lesion in this case. Death from an aneurism is more frequently due to rupture than any other single cause. However, in one series of statistics (a large percentage of cases 863 out of 1827 that is 47%) death from aneurism was not due to rupture of the sac, but "from pressure of the sac upon a nerve, blood vessels, or from secondary changes which take place in those tissues or other vital organs as a direct or indirect result of such pressure". For instance, such as obstruction to the air passage.

Another point that is worthy of note is that whenever there is an adherent pericardium there is often an accumulation of fluid in the peritoneal and pleural cavities such as is present in this case. The association of this polyserositis with adherent pericardium has been duplicated by experimental work, in which an experimental pericarditis has been produced by injection of iodine into the pericardial cavity and allowing the animal to recover. During this period an adherent pericardium occurred and after a few months nephritis and edema set in, usually associated

with cirrhosis of the liver. This is similar to the condition which was described by Hutinal in 1895 as a form of liver cirrhosis of cardiac origin. It is quite probable that if the patient had not had the aneurism he might have developed a typical picture such as described by both Pick and Hutinal. In this particular case the liver did not show any cirrhosis although there was a considerable accumulation of fluid in the peritoneal cavity.

Moore and Keidel present complete history of a patient who developed a fatal aplastic anemia after neoarsphenamin. The literature reveals only three reports of similar cases, aside from those already reported from this clinic. (Syphilis Department of the Medical Clinic, Johns Hopkins Hospital). Authors believe that reactions of this type are by no means so rare as the few reports in the literature would indicate. While authors have nothing to offer regarding the treatment of these reactions, a means for their early recognition on the basis of the blood picture represents a definite step toward the prevention of the more severe forms. Damage to the bone marrow, as indicated by changes in the blood picture, is also present in the majority of patients reacting to arsenical drugs, with a rash of the exfoliative dermatitis groups, and these blood changes differ only in degree from the maximally severe reaction, as seen in this case.

In a previous paper stress was laid on the recognition of the prodromal symptoms of reactions of this group. Further observation and a study of the blood have revealed a slight decrease in neutrophile cells, eosinophilia from 5 to 8 per cent, a slight increase in the large mononuclear transitional group and the presence of numerous fragile leukocytes. The necessity for caution in further treatment was thus strongly emphasized. (Joseph Earle Moore and Albert Keidel, *Ach. Derm. and Syph.*, August, 1921.)

—R—

Wearing a tight hat predisposes to baldness, unless the top is already off, by constricting the blood vessels and thus restricting the circulation of the blood in the scalp. Wise-aces to the contrary notwithstanding.

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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Efficiency

The word *efficiency* is now one of the most popular in the English language. It is frequently uttered by the foremen in every great industry and constantly punctuates the conversation of our industrial and commercial magnates. It is regarded as one of the greatest assets in every business enterprise.

It is not strange then that the public should take up the cry for efficiency and determine the merits of its servants by this quality. Not only will public officials be tried out and proven by the degree of efficiency they can show, but every other servant of the people also.

The demand for efficiency in the practice of medicine has already been made. People are not now over particular about the methods employed. They may prefer sugar pills but they will take the bitter draught if it gets results. They may prefer to be annointed, rubbed and patted, but they will submit to being yanked, twisted and pounded if it will relieve their pains. They may prefer analgesics, soporifics and rest in bed, but they will consent to be cut up, separated and reassembled if it will restore them to health and usefulness.

One may waste his time in deprecating his competitor's ability or his methods, no matter what they may be, but it would serve him better to use all his time in improving his own

methods and increasing his own ability. People are credulous of course, but they usually try another doctor because the one they have had has failed to cure them, and the one that does cure them secures a consistent adherent to his particular system of practice, whatever it may be.

Why should one worry very much over the fact that some smooth politicians and some of the exponents of the various cults in medicine sneaked in one night when our sentries were asleep and trimmed the horns of our medical practice act?

It is currently and authentically reported that Dr. Oste Opath is administering various kinds of drugs to his patients, and we would like to prosecute him for practicing medicine, but we can't because our law was very carefully dehorned. But really Dr. Oste Opath has confessed judgment. He has heard the buzzing of the efficiency bug and has recognized the inadequacy of his joint displacement theory of disease. He is reaching out for something with which to supplement his inadequate methods, and increase his efficiency. Having exhausted the resources of his own cult, it is natural that he should annex those of well proven merit.

The medical profession, fortunately or unfortunately, according to one's point of view, has no patent on its method of treating disease. However, for the protection of the people certain inadequate and very vulnerable laws provide that a certain amount of training, tested by special examination, shall qualify one to use these methods. But we are endeavoring, with all our energies, to familiarize the people with our methods and the indications for their use. Since familiarity breeds contempt one may expect that some of these products of popular medical education will lose any respect they have for the highly scientific training required of the medical profession. Since they are familiar with these methods they see no reason why Dr. Oste Opath should not use them and no argument will convince them to the contrary but his lack of efficiency in their use. The medical practice act was intended to protect the people against incompetent doctors, but by various amendments and other legislative enact-

ments it became a law to protect a certain kind of practice, and the dehorning operation eliminated even this virtue.

Since the people are willing to permit Dr. Oste Opath to use all the drugs he dares, and since there is no law to prevent him, one need not worry about the ultimate results. He may discredit, to some extent, the practice of medicine, he may add considerably to the mortality rate of incompetence, he may convince a few people that the lack of efficiency is in the method rather than the man, but not many, for in these times the people approve only the method of *the man who succeeds*.

People are generally familiar with approved methods for the prevention and treatment of diphtheria, typhoid fever, and a few other diseases, and are justifiably critical of a physician who fails to carry them out, and in case the approved method fails the attending physician's efficiency is questioned rather than the method. But if the approved methods should fail in the hands of many physicians the method would be questioned rather than the attendants.

In other words, it is results the people want. Convinced that certain procedures are efficient, they demand these procedures, but they are beginning to understand that it is efficiency in the man who administers the treatment that really counts.

For ages it has been a principle in the medical profession that none of its members should hold secret from the others any drug or formula or any method of treatment which had proved of value or benefit in the treatment of disease. We have gone a step further in our altruism and the edict has gone forth that the layman shall share with us our knowledge of medicine in so far as his capacity will permit. And while it must always be observed that the benefits of such knowledge are in proportion to the capacity of the recipient there is a great preponderance of evidence that the effort to educate the people in medical subjects, especially in hygiene, sanitation, in the prevention of disease and the care of the sick, has resulted in great benefit. The economical value of the work that has already been accomplished can hardly be

estimated, but it is insignificant in comparison to the possibilities in the ultimate development of the plans already formed.

Possibly it is a selfish consideration, but one may venture the hope that some of the credit due them may be accorded the medical profession through whose efforts many of the epidemic diseases which have ravaged the peoples of the world have been controlled or eradicated. Too many people fail to appreciate the extent of the training which a student in medicine must complete. Too many view a medical curriculum as it is expressed by Elbert Hubbard, who is credited with saying: "Physicians are instructed from books in colleges and by professors who were taught from books in colleges. This is not knowledge. It is the memorizing of things evolved many years ago by men who knew less than we do."

Knowledge is acquaintance with facts. A fact evolved in the sixteenth century is as much a fact as one evolved yesterday, and is as important as an element of our knowledge. To a fact which was evolved in a past century have been added those which have been evolved by succeeding generations until the final discovery which completes and perfects our knowledge of a particular subject. In many cases it has been a long and difficult and discouraging pursuit, but the ultimate result when announced to the public means little. The control of diphtheria means a great deal to the people, but they have no knowledge of the efforts put forth by those who discovered this "great boon to mankind."

One might suggest that in the propaganda for popularizing medical knowledge some effort should be made to acquaint the people with the manner in which this knowledge has been acquired and to whom they are indebted for the benefits they enjoy.

—R— Standing Committees

The following standing committees have been appointed by President C. S. Kinney:

Committee on Public Health and Education—S. J. Crumbine, Topeka, chairman; C. Klippel, Hutchinson; James W. May, Kansas City; F. H. Smith, Goodland; O. D. Walker,

Salina; L. L. Uhls, Overland Park; Howard Geo. Norton, Wichita.

Committee on Public Policy and Legislation—J. T. Axtell, Newton, chairman; C. S. Huffman, Columbus; J. A. Milligan, Garnett; C. S. Kenney, president ex-officio, Norton; J. F. Hassig, secretary ex-officio, Kansas City.

Committee on the School of Medicine—C. C. Nesselrode, Kansas City, chairman; Harry W. Horn, Wichita; Alfred O'Donnell, Ellsworth; Frank A. Trump, Ottawa; J. J. Brownlee, Hutchinson.

Committee on Necrology—E. E. Liggett, Oswego, chairman; J. F. Hassig, Kansas City; W. E. McVey, Topeka.

Committee on Hospital Survey—Geo. M. Gray, Kansas City, chairman; R. B. Stewart, Topeka; L. D. Mabie, Kansas City.

Committee on Medical History—W. S. Lindsay, Topeka, chairman; W. E. McVey, Topeka; O. D. Walker, Salina.

Committee on Scientific Work—J. F. Hassig, Kansas City, chairman; H. L. Chambers, Lawrence; F. A. Carmichael, Osawatimie.

Committee on Group Practice—P. S. Mitchell, Iola, chairman; J. T. Axtell, Newton; C. C. Nesselrode, Kansas City; W. C. Lathrop, Norton; J. L. Everhardy, Leavenworth.

CHIPS

"Cultivating the taste increases the waist."

A blood corpuscle can be cut into three parts by the rocking microtome.

A doctor's claim ranks first on a deceased person's estate in France. Let's go.

Irritability in the neck of the bladder is the cause of a large per cent of the cases enuresis, especially in the young, and is cured by the tincture of belladonna.

Scientists tell us that the greenish, black film on the surface of the yolk of the hard-boiled egg is ferrous sulphide. Like Castoria, physicians pronounce it harmless. And, by the way, it is from the yolk of this same egg that lecithin is derived, which is the form in which phosphorous is found in the brain.

One hundred thousand volt current has been developed. The spark from such a current at

the end of a wire hundreds of miles long will leap across the air fifteen feet. This will encourage long distance treatment.

The poorer the doctor the fewer his obsequies. And sometimes he may be—

"Like the poor benighted Hindoo,

Who does the best he kin do,

And for clothes he makes his skin do."

All kinds of sausage kept in stock is made of meat scraps and more or less of ductless glands.

Query: Should persons suffering from ductless gland disease and other nervous disorders eat sausage and meat products that may contain the ductless glands of animals?

There is a creeping notion entering a great many professional heads that people who eat an excess of salt, chloride of sodium, are more predisposed to arterio-sclerosis and cancer than those persons who are more temperate in its use.

Another notion is that longevity runs in families. The first error or habit can be cured by the salt eater eating less salt. But long life depends largely upon a fellow's antecedents. The more antecedent the longer life. Now these notions (undemonstrated facts) have a cause or foundation for their origin. But how much truth is absorbed in them, statistics in time and experience alone can squeeze out.

Scientists have been telling us that the earth is cooling off gradually and that it will be so cold some time that animal and vegetable life will become extinct on this planet. Mme. Curie tells us that it is not so. She says that "the globe is getting warmer." Radium does it. "That radio active emanation more than offsets the heat that is lost daily by radiation. That radio elements scattered throughout the earth's crust are present in more than sufficient quantities to compensate for the loss of heat." Warming up? Judging by the hot time this old world of ours has had during the past few years, the evidence is in favor of Mme. Curie. Her theory coincides with that of St. Peter. He says, "But the day of the Lord will come as a thief in the night, in

which the heavens shall pass away with a great noise and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up." The radium will do its work silently, but the noise will be caused by the escape of steam.

The belt is taking the place of the wrist watch in timing lunch hour.

It is claimed that corsetless women are better risks in life insurance than those who wear corsets. The claim has star witnesses in anatomical and physiological common sense.

Doctor, do you use furfuraldehyde in your practice? No, not in your patients but in your flivver. It's the new substitute for gasoline.

The "Ghetto" in New York City is its healthiest district. "According to the Board of Health statistics, this section, with a population of 33,400, or more than 3,000 persons to a block, has a mortality rate of 6.44 per 1,000 compared to the city average of 12.93; while the infant mortality rate is only 52 in every 1,000 compared with the city rate of 85." The filth-monger sees in these statistics a grain of comfort and calls attention to the sewer rat which is always fat. But the sewer rat's health and longevity, as yet, has not been tabulated. However that may be, the secret of the low death-rate in the "Ghetto" of recent date, is due to the rigid sanitation employed. If the same sanitary measures were as strictly carried out in all parts of the city it would reduce the mortality statistics as a whole, no doubt.

Another specialty is the "conformer" or ring specialist. This collateral branch in medical practice is the result or outgrowth of a discovery by scientists that "round-headed men have exceptional capacity for labor (plodders) but lack in initiative, governing capacity and colonizing genius, which is a decided characteristic of the long-headed type of men." This discovery places another burden on the medical profession and makes it more than ever its "brother's keeper." The specialist in medicine is an offshoot, branch or sucker of the tree of general medicine.

Likewise, for a time, the accoucher will control and have to do the ring or conformer's work; but it eventually will be classified as a branch of psychoanalysis; that is, a fusing of the chiropractor, osteopath and masseur psychic. Three in one—trinity—one head. The duty or practice consists in changing the shape of the head of the baby at birth to suit the fashion or taste or ideas of the parents, or to meet the demands of the commonwealth for round or long-headed men. The instrument used at first (until the art is perfected) will be the conformer or ring now used by the hatter in measuring a head for a hat. Hence the name. When the child is born the accoucher will clap the conformer around its head and beat nature to it in perfecting the child for its future life by shaping its head.

Moral: Every doctor should know the shape of his head. He may be training with the wrong class or trekking in the wrong direction.

A lively discussion is on between the "Health authorities and the medical profession as to who is It. And an effort is being made to unite the work to conserve health and prevent disease. One leading medical journal suggests that health standards will be elevated *only* as the public acquires more knowledge." The statement is correct, we think, except the *only*. The word *only* should have been omitted. The stream can rise no higher than its fountain. The medical profession is the fountain. The medical profession has the knowledge. What is lacking is wisdom. Wisdom like education can be acquired. Acquisition is made by elimination. By lopping off intolerance, bigotry, jealousy, and that "I am that I am" spirit.

Hence we conclude that the public needs education; but the health department officials and the medical men need more wisdom before the millenium in preventive medicine is approximated.

Moral: Get together. Quit the mote habit.

An advertisement in "The Pathfinder" is headed, "You Can Kill Worry and Fear Instantly by a Simple Method of Breathing." The statement evidently is not intended to be deceptive, but unless translated properly one

may be deceived, is the reason for the appended translation. The discovery was made by a Kansas doctor after he had hung some goat glands on a fellow. In a short time the happy possessor of the goat glands smelled like a goat. It is not, then, the manner or way of breathing altogether, but it is the skunky odor of the breath, in addition to the *butt*, that kills all fear and worry. The breath is beyond the limit.

"Dr. H. S. Langford, a noted English psychologist, says that lying causes apoplexy by increasing blood pressure. Something to it if the experiment could be tried early enough. But immunity is established so early in life that, as yet, it is not classed as one of the usual causes of apoplexy. However remote the danger, let's quit.

Oily to bed,
And oily to rise,
Is the fate of a man
When an auto he buys.

—Pathfinder.

Scientists say that the prehistoric skull and brain of man was as big and some of them larger than those worn at the present date. If that is true and man knows more now than he did in those days, it is because he has had more time to think. Again; thinking may have changed the shape of the skull and thus moulded the brain into a more artistic shape; also, fluffed the gray matter up, making a finer fibre and more porous with absorbing properties like a sponge.

It is not the bigness of the head that counts so much, as it is the texture of the substance within the cranium and its richness in convolutions.

Postmortem of the head of the late Gambetta, the great French statesman, proved that his brain was but a fraction heavier than the average idiot. But the report said "it was rich in convolutions". These convolutions or folds in the brain affords a large surface to be bathed with lecithin, to receive impressions from without, to be transformed into conscious thought within.

Trench mouth is a product of the 18th amendment. It is brought on by the culprit

twisting his neck and head around over his shoulder watching, to keep from getting caught in the act while drinking home brew. Prohibition is the remedy. The hair of the dog cures the bite.

The favorite method of growing a bay window on the person, is to wear a belt tight enough to keep the trousers up.

To cure corns on the feet go barefoot one season or wear sandals. Then select footwear that fits the foot.

White clothing is said to be more healthful for the wearer than dark clothing. Maybe its because it has to be kept cleaner to be presentable.

Light clothing reflects heat. Dark clothing absorbs heat. Light, aside from the direct rays of the sun, causes a change in certain foods and drugs. Canned fruit in glass jars deteriorates much more quickly in the light than if it is kept in the dark. Nitrate of silver, calomel and some other drugs are changed on exposure to light.

Potato sprouts grown in a dark cellar are white and look bleached and their color changes on exposure to increased intensity of light up to the direct rays of the sun when they take on a normal color. It may be that light clothing favors development of chlorophyll or its equivalent in the two legged tuber.

The practice of medicine is tending too much to mechanics-(apparatus). It is doing away with the physical human touch. Apparatus is doing away with the manual method of manipulation in restoring the asphyxiated from drowning, gas, shock or suspended animation. Apparatus in the practice of medicine bears about the same relation to the doctor in his treatment of the case that printed words bear to the reader as compared to the living voice uttering the same words to the hearer.

For example the pulmotor and lung motor are helpers, assistants, the printed word; but they cannot take the place of the touch of the principal, or the living voice (the doctor) in quickening life with life. Depending upon your apparatus does away with preparation to meet the emergency by manipulation and

the patient is beyond recovery before the apparatus can be obtained.

Again, the manipulator of the apparatus must have experience in its use or he may do harm. And, no doubt but what deaths are caused by use of these instruments for resuscitation by the expert. Experience thus far shows that the manual method of resuscitation is more successful than by the use of the apparatus.

The suggestion is, to be qualified to use the manual method and it will be present all the time and to use the apparatus as a helper and for its hypnotic effect on the audience if it appears to be the proper thing to do.

Iodine is the sheet anchor in the prevention and cure of simple goiter. It was the remedy used fifty years ago. It would be interesting to know how its therapeutic effect became known. Probably old Doctor Empiricism discovered its good effect on goiter, for it was known before the day of the higher criticism in medicine. It does an old codger good, away down in his fourth stomach, to know that the remedies he used in the prevention and cure of disease have not all been relegated to the dump pile. In fact he notes with pleasure that quinine, calomel, morphine, atropine, castor oil, sulphate of magnesia, ipecac, etc., used and relied upon fifty years ago, constitute the reserve corps of the present day physician's armamentarium. Cultivation has improved the method of use of the same, as training may improve the manners of the individual. However, politeness may be temporizing with substitutes, weaklings, boys to do the work of the man. Moral: Use the substitutes and boys for play; but send the old man (old remedies) in an emergency and when real work is to be done.

Time is well spent in studying what to say in the sick chamber. But it is of secondary importance, only, to study what not to say. In case of doubt mum is the word.

Life Is A Funny Road. This comment on Life is printed on the reverse side of McDowell Reality Co.'s L. A. Business card. It teaches nothing new. But it harrows up facts of experience for us to cogitate.

"Man comes into this world without his consent and leaves it against his will. During his stay on earth his time is spent in one continuous round of contraries and misunderstandings by the balance of the species. In his infancy he is an angel; in his boyhood he is a devil; in his manhood he is everything from a lizard up; in his dotage he is a fool; if he raises a family, he is a chump; if he raises a check, he is a thief; and the law raises the devil with him; if he is a poor man, he is a poor manager and has no sense; if he is rich, he is dishonest but smart; if he is in politics, he is a grafter and a crook; if he is out of politics, you can't place him, and he is an undesirable citizen; if he goes to church, he is a hypocrite; if he stays away, he is a sinner and is damned; if he donates to foreign missions, he does it for show; if he does not, he is stingy and a tight wad. When he comes into the world, everybody wants to kiss him; before he goes out they all want to kick him. If he dies young, there was a bright future before him; if he lives to a ripe old age, he is in the way, and living to save funeral expenses.

Life is a funny road but we like to travel it just the same."

Pneuma. This is the name of a prospective new school of medicine. Its graduate will receive the M.D.P. (or P.D.Q.) degree. Its tenet is right breathing. It is founded on the practice of an ancient Greek class of physicians who believed that health and disease depended on the proportions of pneuma. The air breathed must be in the right proportion as well as the amount. The proportion is not given. But it is assured that it will be measured and properly mixed by the wind bags used in treatment.

There is a tendency on the part of medical men to spend what they earn as they get it. This makes them poor financiers and is liable to make them empty handed in old age. The average doctor makes enough during his productive period of practice to put away a nest egg for his dotage, if he would economize. This doesn't mean that he must be miserly or stingy. It does not mean for him to spend his time studying up what to buy. But it does

mean that he should spend some of his time in studying what he doesn't need, can do without and is better off without. These lines set to *Jazz* tell how the big financiers do it and the way to competence.

(Upper G Flat)
The squeal of the pig
Saved, in finance, 'tis said,
Is what gets the big
Four flusher his bread.

It's the little that's saved
And not so much that we earn
Makes us chesty and brave
On this spherical urn.

To the little we have
Add a little bit more,
And in riches we'll live
Henceforth evermore.

Then let us get busy
With main and with might
And make J. D. look dizzy
Financing our flight.

By curbing our habits
Of waste and expense,
Lest poverty nab us
Without a defense.

A boy of 19 with retarded mental development, emaciated form, and the comic facial seriousness of an old man, had extremely long feet and hands. The radiogram also showed a very small sella turcica and a closer approachment of the anterior and posterior clinoid processes—all indicative of pituitary insufficiency. There was also infantilism of the genitals with arrest of development of the secondary sexual characteristics. The Wassermann and Pirquet tuberculin reactions were both positive, and his mother stated that the father had taken mercurial treatment before the boy's birth. After a vigorous treatment with 12 calomel injections, 3 neo-arsenobenzol and 8 argulan injections, the secondary sexual characteristics of the patient developed, the pituitary body became enlarged, and the patient became gay and alert mentally. Mariotti concludes that the glandular activities were arrested at puberty by the infection and resumed their evolution upon specific treatment.—Ettiore Mariotti, *Gior. ital. d. mal. ven.*, Milan, Apr. 27, 1921.—K. A. M.

The clinical histories of 4 patients suffering from heredo-syphilis, who developed a syndrome identical to spinal spastic paralysis,

are correlated with cases reported by Nonne, Friedmann, Mendell, Luzenberger, Hoffman, Sachs, Vizioli, Tooth, Konigstein, Dejerine, Finizio, Artgales and Tambroni.

A clinical grouping is thus formed of the syndrome observed in each case. Motor disturbances are first noted in early childhood, continuing to puberty; one case is mentioned occurring after that period. Locomotion may begin normally or may be retarded. Disturbances may be limited to the lower extremities, or may include the upper as well. The paresis and spasms are sometimes uniform, rarely of such severity as to prevent the patient from standing up. The onset of spasms is gradual, a severe degree of rigidity being sometimes attained; occasionally extension contractures of thighs and legs, and plantar flexion of the feet, have been present, also muscular spasm of the neck. Foot clonus may be present, while the Babinski sign has seldom been noted. Optical symptoms, such as cataracts, absence of reaction to light, atrophy, anisocoria, strabismus, and ocular weakness, have been observed. General sensibility is usually well preserved. Disturbances of articulation, and rectovesical disturbances, are also recorded.

Psychic disturbances are common; the conditions vary from normal mentality to imbecility. Because of the scarcity of recorded cases deductions vary; although the Wassermann reaction and spinal fluid test have at times proved negative, syphilis is presumed to be a predisposing factor, and anti-syphilitic treatment is recommended. Mention is made of the difficulties of determining under what conditions heredo-syphilis will produce spinal spastic paralysis rather than some other type of cerebral or spinal disturbance, also of the similarity of these types to Little's syndrome, and a detailed pathological description is given of both in their latter stages. Attention is drawn to the fact that, in a third of all cases, the disease began at the same period of life, namely, at puberty, when the loss of balance of the endocrine glands is so easily acquired.

The author feels that the disease should be known as "Spastic paralysis of spinal type", thus following the tendency of modern neuropathology to place in the cerebrospinal group

certain disturbances hitherto classed as purely spinal.—G. Mingazzini, *Arch. Neurol. & Psychiat.*, June 1921.—K. A. M.

In the congenital type of syphilis, the clinical signs seem to point to a more general involvement than is the case in the acquired type. The involvement of the nervous system occurs oftener in the congenital cases. Therefore, the lumbar puncture becomes an essential part of the examination of every case of unsuspected syphilis characterized by nervousness, backwardness, and defectiveness.

Juvenile paresis is the most frequent of all the various forms of syphilis seen in children. It is very similar to the adult type.

The author gives a number of case histories.

He comes to the following conclusions:

1. The condition is common.
2. The nervous system may be involved early.
3. The lumbar puncture may be of great help and should be a routine part of the examination of every nervous child.
4. Syphilis in children necessitates a blood and spinal fluid examination of the parents and vice versa.
5. Treatment is not very promising.
6. The stigmata are not necessary nor even frequent.—Syphilis of the Nervous System in Children, Edward Livingston Hunt, *Am. Jr. Syph.*, April, 1921.

Dr. Frederick L. Hoffman, Statistician for the Prudential Insurance Company, has given some very interesting figures for cancer mortality in 1920.

The total approximate mortality was 90,000. There were 15,768 more deaths of females than males and there were only 4,117 deaths of colored people for cancer. There were 3,339 deaths from cancer of the buccal cavity; 34,293 deaths from cancer of the stomach and liver; 11,980 deaths from cancer of the peritoneum, intestines and rectum; 13,671 deaths from cancer of the female generative organs; 8,369 deaths from cancer of the breast; 3,169 from cancer of the skin; and 15,188 from cancer of other organs and parts.

Bastron, reviewing the opinions of syphilographers on the value of spinal puncture,

finds that many agree that it is of great diagnostic value in early syphilis; that in late neurosyphilis the diagnostic value is beyond question; and that authorities are practically unanimous in urging that no case of syphilis be discharged as cured without one or more spinal fluid examinations.

The status of intraspinal therapy in neurosyphilis is still uncertain; and the curative value of spinal drainage is disputed. References. (Carl H. Bastron, *Am. Jo. Syph.*, July, 1921.)

Ward concludes that the complement fixation and the luetin test should be made simultaneously in every suspected case of syphilis. Reviews the literature and presents report of investigations conducted at the Detroit Board of Health Venereal Clinic for Men. (Herbert C. Ward, *Am. Jo. Syph.*, July, 1921.)

Thaysen applied the Wassermann test repeatedly to 66 persons during the course of a year or more. All had been under prolonged observation for many years; syphilis was known in 23. The conditions and the technic were scrupulously alike in all the tests, and yet the reactions showed a wide range from negative to positive or dubious, with fluctuations from time to time. The closest analysis failed to reveal any causes for the variations in the responses. Author states Craig's communication in the *Journal* March 10, 1917, is the only report of similar research which the author has been able to find in literature. (T. E. Hess Thaysen, *Acta Medica Scandinavica*, Stockholm, June 17, 1921; *Journal A. M. A.*, August 27, 1921.)

Drs. Levaditi and Sazerac of the Pasteur Institute presented a communication to the Academy of Science concerning the use of a new substance in the treatment of syphilis; namely, potassium sodium bismuthate. This substance is still in the experimental stage. Intravenous injections of a watery solution of this compound were made in three syphilitic rabbits. The following day no spirochetes could be found in the blood. No recurrence four months later. A prompt cure of the primary symptoms of syphilis in man has been brought about, also the disappearance of the

spirochetes from the blood. But no final conclusions, the author states, can yet be drawn from these experiments for several years. (Paris Letter, Journal A. M. A., July 23, 1921.)

Council Remedies.—One of the most important developments in the medical history of the past five years has been the work of the Council on Pharmacy and Chemistry, of the American Medical Association. Their examination and analysis of newer remedies has done much to advance the standard of manufacturing pharmacy; it is safeguarding the doctor against inferior products, and indicating those for which misleading claims are made.

The co-operation of the doctor in using and prescribing Council-Passed products is making this work more effective each year. The co-operation of the manufacturers is, also, an encouraging recognition of the value of this service. A partial list of the Council-Passed remedies, manufactured by The Abbott Laboratories, Chicago, appears in this issue. These are obtainable on prescription at the leading pharmacies, or may be obtained direct, as desired.

SOCIETIES

The Northeast Kansas Medical Society

The fall meeting of the Northeast Kansas Medical Society will be held at the Elks Club in Leavenworth on Thursday, Nov. 17th, at 1 o'clock p. m., with the following program:

1. "Emergency Treatment of Foreign Bodies of the Nose and Throat." Case Reports—Dr. L. V. Spake, Kansas City.

2. "Toothache from Sinusitis." Case Reports—Dr. H. L. Chambers, Lawrence.

3. "Tuberculosis of the Kidney."—Dr. W. D. Storrs, Topeka.

4. "The Significance of the Normal Movements of the Stomach."—Dr. O. O. Stoland, Professor of Physiology, Kansas University.

5. "Notes on Infant Feeding."—Dr. E. T. Shelley, Atchison.

6. "Paralysis of the Ocular Muscles."—Dr. C. M. Brown, Kansas City.

7. "X-Ray Therapy."—Dr. Homer G. Collins, Topeka.

8. "Bone Pathology—X-Ray Diagnosis." Dr. Lewis G. Allen, Kansas City.

9. "Radium and Deep Roentgen Therapy in Malignant Conditions."—Dr. E. H. Skinner, Kansas City, Mo.

10. "Interpretation of Results of 50,000 Wassermann Tests."—Dr. W. W. Duke, Kansas City, Mo.

11. "Treatment of Syphilis."—Dr. S. L. Axford, Leavenworth.

J. L. EVERHARDY, *Secretary*.

Finney County Medical Society

The regular monthly meeting of the Finney County Medical Society was held October 25, 1921. This was one of the big attendance meetings of the year.

Following the preliminary routine of minutes and roll call, the secretary reported that all of the surrounding physicians had been written to, urging them to join with us in order to swell the membership, not only of the local society, but also to attain the desire for a two thousand membership in the State Society by the first of the year.

The program of the evening was a paper, "Measles," by Dr. T. F. Blanke, of Garden City, Kansas.

The paper covered the ground in clear and concise manner. It dealt with typical forms and variations from normal. The treatment was emphasized especially.

Discussion was opened by Dr. J. B. Edwards, who suggested that though there might not be much to say in the way of treatment, general care and observation were imperative, and hot baths and the use of cold drinks were of especial help.

Dr. Stillson discussed the paper from the points of rest and ventilation, and insisted that we take the disease more seriously, in view of its sequelae and accompanying conditions, and laid weight on this disease as a causative factor in the production of otitis, bronchopneumonia and tuberculosis.

Doctors Rewerts, Brown and Gray discussed the recession and delayed eruption of the exanthem, describing symptoms of cases

in point, and suggested remedies for relief of this state.

Dr. Blanke closed the discussion, expressing thanks for the reception of his paper and the discussion it elicited, and re-emphasized the need of careful handling not only of the disease but its accompanying conditions, and urged that we be more serious in consideration of quarantine and thereby be of greater service to the community at large.

The next meeting will be held with Dr. J. B. Edwards, the evening of November 29th, 1921, at 7:45 p. m. Neighboring physicians are urged to come and meet with us.

R. M. TROUP, *Secretary*.

Jewell County Society

The Jewell County Medical Society met in regular session on Friday evening, October 15, at the Y. M. C. A. rooms, Mankato. J. E. Hawley and L. V. Hill were re-elected president and secretary-treasurer for the ensuing year.

Program: "Toxin-Anti-Toxin in Diphtheria," by Dr. Patrick. Discussion was led by Dr. Hawley. Society adjourned to meet on call of the president and secretary.

L. V. HILL, *Secretary*.

Coffey County Society

The Coffey County Medical Society met October 19 in Burlington and started off with a banquet for all Doctors and their wives at the Riverside Hotel. After the dinner the ladies enjoyed a line party at the theater as guests of the Society.

The Doctors met in Dr. Gray's spacious office for their meeting. The entire program was given to the discussion of Cancer by the different members of the Society. Papers on Cancer were given by Drs. Fear, Boggs, Rowe, Manson, Kent and Kesner, and were discussed by the Society with some heated arguments.

Dr. Hertzler surprised us by dropping in unexpectedly and gave a very interesting talk on the current subject "Cancer." He gave his experiences and results and discussed the latest fads on the treatment of Cancer.

The idea of including our wives in the program was a new experiment for us. It proved very satisfactory and we hope to repeat it in

the future. In fact, the ladies say if we don't, they will form a society of their own and meet whenever we have our meetings. We had a record attendance of 29 present.

A. B. McCONNELL, *Secretary*.

Douglas County Society

The regular monthly meeting of the Douglas County Medical Society was held in joint session with the Franklin County Medical Society at Baldwin, Kansas, on October 6th. A paper on "Hypertension," by Dr. Ralph Majors of the School of Medicine, was read and much appreciated judging from the interest taken in its discussion by men from both associations, which was very profitable.

Dr. V. P. Lawrence of Ottawa, Kansas, presented a very instructive clinic of aortic aneurism.

The local members of Douglas County Society in Baldwin had arranged a very desirable place of meeting at the Bank Hotel, where dinner was served by the society to thirty-one physicians.

J. R. BECHTEL, *Secretary*.

BOOKS

A Treatise on Cataract. By Donald T. Atkinson, M. D. Published by the Vail-Ballou Company, New York.

The author has presented in this small, well-illustrated book a synopsis of the most approved methods for cataract operations and their after treatment. The technic of each operation has been carefully described and each step has been illustrated with original drawings and plates. The subject of cataract is very thoroughly discussed.

Diseases of the Skin. By Richard L. Sutton, M.D., Professor of Diseases of the Skin, University of Kansas School of Medicine. With 969 illustrations and 11 colored plates. Fourth Edition revised and enlarged. Published by C. V. Mosby Company, St. Louis.

Sutton has produced a classic on skin diseases. His last revision brings it up to date and it can easily be regarded as the last word on this subject. A considerable number of changes have been made, but perhaps the most important are the description of nocardiosis, Vincent's disease, dermatitis dysmenorrhoea, amebiasis cutis and neurotic excoriations of

the skin, which have been added. Whatever of progress has been made in dermatology is faithfully presented in this volume.

Practical Medicine Series, comprising eight volumes on the year's progress in medicine and surgery under general editorial charge of Charles L. Mix, A.M., M.D.

Vol. II. General Surgery. Edited by Albert J. Ochsner, M.D., etc., Professor of Surgery, Medical Department State University of Illinois. Series 1921. Price \$2.50

Vol. III. Eye, Ear, Nose and Throat. Edited by Casey A. Wood, M.D., Albert H. Andrews, M.D., George E. Stambaugh, M.D. Series 1921. Price \$1.75. Published by The Year Book Publishers, 304 South Dearborn, Chicago, Ill.

These are parts of a series of eight volumes issued at about monthly intervals beginning in May and covering the entire field of medicine and surgery, each volume being complete on the subject of which it treats for the year prior to its publication.

Surgical Clinics of North America, August, 1921. Published bi-monthly by W. B. Saunders Company, Philadelphia.

A clinic by Bevan occupies the leading place in this number of the clinics. A case of x-ray burn was treated by removal of damaged tissue. A case of acute appendicitis and one of carcinoma of the stomach were operated on under local anesthetic. In Kanavel's clinic a case is reported in which a splenectomy is done under local anesthetic. Ochsner and Nuzum discuss the ligation of the inferior artery and vein under local anesthetic. Eisen-drath presents several cases illustrating the importance of a careful study of the lymphatics of the female breast in relation to carcinoma. There are also clinics by De Lee, Kretschmer, Davis, Parker, Halstead, Straus, Cornell, Andrews, Louis and Moorhead, Beck and Cabot.

Food Products, Their Source, Chemistry and Use. By E. H. S. Bailey, Ph.D., Professor of Chemistry and Director of Chemical Laboratories, University of Kansas. Second Edition revised. Published by P. Blakiston's Son & Co., Philadelphia. Price \$2.50.

It may seem needless to know much about the food upon which one depends for sustenance as long as it seems to be wholesome and pleasingly served, but after reading this book one begins to realize that his food might be more wisely selected and better prepared. One

may get considerable valuable information from the chapter on bread and bread-making. The volume is filled with very valuable and intensely interesting information.

The Medical Clinics of North America, July, 1921. Published by W. B. Saunders Company, Philadelphia.

There are several articles of extremely practical value in this number of the clinics. There are several that deal particularly with pathologic conditions of the heart. Hamburger discusses the administration of digitalis in the presence of certain acute infections. Many will also be interested in the article by Bassou on "Endocrine Growth Disturbances." Byfield presents some very valuable suggestions under the discussion of aids in physical diagnosis.

Taken all together the collection of papers in this number will add considerable value to any physician's library.

Fruit Juice in Dentifrice

The effect of fruit juices in the mouth is now quite clearly understood. The common expression that a taste of orange or apple makes one's mouth water means that these mildly acidic fruit juices have the peculiar power to stimulate salivary flow. More than that, it means that the saliva which responds to this stimulation is frequently more normal than was found in the same mouth during the pre-stimulated period. This is one of the chief reasons why fruit should form a part of each meal, why each meal should open and likewise close with fruit. It produces a copious, fluid, alkaline saliva which is so essential in order that the oral cavity may function properly.

Latterly various investigators have found that dentifrices should be mildly acidic, like fruit, to assist nature in maintaining a normal saliva. They have, moreover, proven that alkaline mouth preparations are contra-indicated in the mouth and should be abandoned because they oppose nature in maintaining normal oral secretions. The most universally used acid dentifrice is Pepsodent. It is endorsed by many in the professions and used daily because it stimulates salivary flow in a manner similar to fruit.

It Must Be Made Right from the Start

Norway is best known for her midnight sun and her immense harvests of the deep. Nature has nowhere been so prodigal in providing ideal conditions for the spawning, feeding and development of the true gadus morrhua than in the waters surrounding the far-famed Lofoten Islands, Norway. For a century or more, cod-liver oil has been recognized as a dependable and easily absorbed nutrient and more recent investigations reveal that it is an exceedingly fruitful source of the anti-rachitic vitamins. Cod-liver oil to be utilized to the fullest extent by the system should be pure and sweet and free from admixtures with inferior non-cod oils and also free from admixture with blood and gall—due to careless and unscientific handling of the livers. Cod-liver oil is as delicate as butter and in the selection and processing of the livers should receive as much care as science has thrown around the production of pure milk. It must be made right from the start! For nearly half a century the producers of the "S. & B. Process" clear Norwegian Cod Liver Oil have concentrated their endeavors and specialized upon the product of the livers of the true gadus morrhua. Never satisfied with the quality of oils offered on the market, several years ago Scott & Bowne established their own cod-liver oil plants in Balstad (Lofoten), Norway, where under most exacting, modern scientific and hygienic conditions, the "S. & B. Process" is produced. This high-grade oil is then brought over-seas in special containers to be refined in the unique S. & B. Laboratories in America. The "S. & B. Process" is the only cod-liver oil made in Norway and refined in America. This oil is guaranteed a 100 per cent product of the livers of the true gadus morrhua and absolutely free from admixture with other oils or impurities. Physicians may prescribe the "B. & S. Process" with an assurance that his patient will always receive the nutrient and vitamic virtues of cod-liver oil in truest form. We are reliably informed that liberal samples of this high-grade medicinal cod-liver oil will be sent to physicians on request. The address is Scott & Bowne, Bloomfield, N. J.

New Nonoperative Technic for Removal of Impacted Calculus in Urethra

From the standpoint of urethral obstruction, P. A. Jacobs, Cleveland (Journal A. M. A., Sept. 10, 1921), asserts that impacted calculus presents the same mechanical problem as a filiform structure. Therefore, a number of olive tip whalebone bougies are inserted into the urethra up to the point of obstruction. The same preparatory technic as in all urethral instrumentations having been observed, one by one the bougies are manipulated so that they pass a little beyond the stone and surround it. When the bougies are in the described position, they are all grasped together and pulled out rather firmly and quickly. From fifteen to twenty bougies are necessary properly to surround the stone. When they are pulled in the manner described, the calculus is caught as if in a cradle and comes along when the bougies are withdrawn. Moreover, the calculus is surrounded with bougies which act as a covering to the rough surface, and prevent injury to the mucosa during the procedure.

— R —

Intestinal and Hepatic Reactions in Anaphylaxis

The anaphylactic reaction in guinea-pigs and dogs, W. H. Manwaring, Stanford University, Cal. (Journal A. M. A., Sept. 10, 1921), says is characterized by the explosive formation or liberation of smooth-muscle relaxing substances by the hepatic parenchyma. These substances are directly responsible for the hepatic vasodilatation in dogs, and either directly or indirectly responsible for the general vasodilatation. In guinea-pigs, these substances act as an antianaphylactic mechanism, tending to overcome the initial bronchial and vascular spasms or to prevent these spasms if the protein injections are made by way of the mesenteric veins. The chemical nature of these smooth-muscle relaxing substances is unknown. There is no reason, at present, to believe that they are antibodies. There is evidence that they are not cleavage products of the specific foreign protein. In dogs, there is evidence that the hepatic reaction is secondary to a preliminary serum reaction.

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Diaphragmatic Hernia

P. E. Truesdale, Fall River, Mass. (*Journal A. M. A.*, Sept. 24, 1921) discusses the varieties, mechanism, symptoms and diagnosis, and physical signs of diaphragmatic hernia and reports two cases. One patient, a boy, aged 5 years, was run over by an automobile, May 11, 1920. A front wheel of the machine passed over his abdomen. He was taken to a hospital, in a condition of shock; the exact nature of the injury could not be determined. At the expiration of two weeks, the patient apparently had recovered, and was discharged. Soon he was about the house and mingled with other children at play. It was noticed on frequent occasions that his breathing was embarrassed and his food caused distress, especially if he ate bananas or overloaded his stomach with any food. At night he required several pillows; otherwise he was restless and his breathing labored. He was said to have been more subject to "colds." These minor complaints were variable and not of sufficient severity to cause more than passing concern. In December, 1920, he had a severe attack of pain referred to the left upper abdomen. He was nauseated, and tried unsuccessfully to vomit. The appearance of cyanosis, dyspnea and sweating accompanied the attack, which did not last more than ten minutes. At intervals of two to three weeks, these symptoms of strangulation recurred. The duration of the attacks increased and very visibly affected the boy's endurance. Eventually, a diagnosis was made of diaphragmatic hernia, which was confirmed on roentgenologic examination. The second patient, a boy, aged 3½ years, was also run over by an automobile. He was admitted to the hospital in a state of shock, and in many details this case was comparable with the first. At the end of three weeks, the lacerations in the diaphragm were closed by the abdominal approach.

—————R—————

Study of Early Effects of Sippy Method of Treating Peptic Ulcer

The effects on the symptoms, gastric chemistry, evidences of occult bleeding and roentgen-ray findings caused by the Sippy treatment were studied by Howard F. Shattuck, New York (*Journal A. M. A.*, Oct. 22, 1921).

in twenty-eight cases of peptic ulcer, six gastric and twenty-two duodenal, over a period of from six months to two years. Twenty-two of the twenty-eight patients have remained free of symptoms throughout the period of observation. Eleven patients were followed from one two years with complete relief in nine, and unsatisfactory results in two. Of the seventeen patients followed for less than a year, thirteen have remained symptom free and four have not. Of the seventeen patients studied with the Ewald test meal or the fractional method, ten showed no marked reduction in acidity, though all but two were rendered free from symptoms. Hypersecretion was detected in more than half of the cases examined. It was reduced by treatment in less than half of the cases, though some cases with persistent hypersecretion were made symptom free. Six of the twenty-eight patients showed occult blood in the stool. It disappeared in all cases after three weeks. In eighteen cases, comparative roentgen-ray studies were made from six months to two years after beginning treatment. Five of seven patients with duodenal ulcer, followed from one to two years, showed evidence of favorable roentgen-ray change. Two did not. All six duodenal cases followed from six to twelve months showed some favorable roentgen-ray change. Six cases of ulcer of the lesser curvature of the stomach were followed. The niche deformity and six-hour residue disappeared during treatment in five of these.

—————R—————

Surgery versus Roentgen Ray in Treatment of Hyperthyroidism

From a study of the evidence offered by those who advocate the roentgen-ray treatment of hyperthyroidism and a consideration of his own experience, George W. Crile, Cleveland (*Journal A. M. A.*, Oct. 22, 1921), is inclined to believe that the surgical treatment of hyperthyroidism combined with physiologic rest yields the most favorable results. Heretofore, the only valid objection to surgical treatment has been the mortality; but now surgical treatment is undertaken in every case; the mortality is practically eliminated; much time is saved, and a more certain cure is achieved.

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What Is Dementia Praecox?

KARL A. MENNINGER, Topeka

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

As the mystery of ancient medicine was fever, which we now know to be chiefly the product of infection, so the mystery of modern medicine is, I suppose, cancer. Correspondingly as the mystery of early psychiatry was epilepsy or convulsions, which we now know to be chiefly due to brain cortex injury or irritation, so the mystery of modern psychiatry is dementia praecox.

PREVALENCE

Dementia praecox is a disease that deserves the attention of every medical man. There are at the present time in the United States 125,000 in the custody of state hospitals, and it is safe to say that there is an equal number outside the walls of the state institutions. This is a far greater number of cases without doubt than the combined total number of cases of brain tumors, spinal cord tumors, pelvic cellulitis, placenta previa, inverted uterus, and other similar topics for today's consideration of this society.

In the state of Kansas there are approximately 1,600 cases of this disease within hospital walls and many unrecognized cases outside.

Here let me quote from an open letter from Bayard Holmes, a Chicago surgeon, who, having lost his son to this disease, dedicates the rest of his life to the study of it, and in a ringing appeal for the promotion of research writes:

"In order to audit this plague of civilization, add to the inconceivable personal suffering of these soul poisoned youths, the miseries of an equal number of confounded and woebegone families from which they have been snatched by this horrid and revolting

possession, . . . follow to their homes the stricken, astounded and worse than heart-broken families, and then alone can this social blight and catastrophe be dimly recognized.

" . . . We have been stunned by grief and woe. We have been silenced by the stigma of disgrace which an unknown etiology of these diseases has permitted the keepers of the insane to heap upon us."

In spite of this tremendous prevalence and in spite of this terrible seriousness of the disease, its very name is unfamiliar to many physicians and its vaguest outlines to an even greater number. In this brief paper I shall endeavor to present in a simple way the outstanding facts about the disease. There are, *first*, certain clinical features; *second*, prognostic principals; *third*, social and medical implications.

NATURE

For working purposes we must conceive of the mind as being made up of perception, ideation, emotion and volition—we perceive, we think, we feel, we act. Each of these functions of the mind may be distorted, may be split in any one of several ways. We are familiar with the hyperactive emotion of the melancholiac, with the underactive and underdeveloped intelligence of the feeble-minded, with the feebly developed will of the neurasthenic. These abnormalities may be classified as being those of the type of exaggeration, those of diminution, those of distortion, and those of actual fracture.

Dementia praecox represents the fractured or broken mind. From this fact comes the name by which it is best known technically—schizophrenia; from "schizo," meaning split, and "phrenia," meaning mind. The split, distorted, broken mind is the mind of dementia praecox.

First of all the *perceptive* powers are distorted. This results in hallucinations—that

is they perceive things which do not exist. I will cite briefly a few typical cases to illustrate this.

CASE 1. Arthur (10987) is 23 years old. All of his family were normal but for three years he had been peculiar. He talked of hearing people whispering about him and making significant sounds which referred to him; he thought people said that he was a nigger, he heard bells ringing, he thought that his horse lost weight because it had been doped, he thought he saw spies watching him.

CASE 2. Grace is the daughter of an intelligent and prominent man in this state. There were various evidences of dementia praecox but for the moment the most interesting fact is that she seemed quite normal except that she would constantly request that Arabella, the angel who came each night to her room and sat in the corner and made a noise which disturbed her, be taken away.

Hallucinations occur in nearly every case of dementia praecox. There are many other mental diseases in which hallucinations are prominent and so a diagnosis cannot be made from this alone. They are as a rule, however, a bad sign.

After perception we think of intellect. The distortion of intellect is shown as delusions and the splitting of intellect as incoherence. There are other forms of pathology too technical to dilate upon here. But these may be well represented in the case of Edmund.

CASE 3. (11045). Edmund was 18. He was considered well until one week he refused to get up in the morning to go to work but lay in the bed reading the bible. He announced that he was the Holy Ghost and therefore didn't have to work. He said he would be fed anywhere he went. He said his brother was persecuting him, had beaten him. He said a peculiar man sat by him and ate oranges to tease him. He said he was a common human being on whom God had forced the Holy Ghost power. This power was forced on him so as to reveal the truth to the people. "North is now south and east is now west, the world having been changed in February." He said a voice told him to go straight ahead. "The house dog seemed

frightened. The house cat was between him and the dog. The former was spitting and showing fight. He knows it was God's voice said these words to him and has the following to say which he thinks is quite plain. The dog represented the other man, the cat the other woman, and himself the third man in the modern triangle. The dog being frightened meant he, the patient, was going to be the winner. The girl, or the woman, in this case is from a family with thirteen children. The number "13" is explained as follows: There are thirteen tribes of Judea in the Bible, thirteen colonies in the United States, thirteen is an unlucky number. There are also seven churches mentioned in Revelation, and there are seven children in his parent's family. Here he just gives up trying to explain anything further regarding the numbers but says there is some connection regarding these numbers etc., which a preacher by name of Scheding could explain."

Broken or split feeling results in the patient's believing one way and feeling another way. Thus patients often say they are about to be burned at the stake but they smile or ask for a cigarette in the next breath. I once had a patient who would fall on his knees and say in a most piteous voice "For God's sake don't let them cut me up this afternoon; isn't it almost time for supper?" Emotional splitting is usually shown by a general apathy. The following case illustrates it very well.

CASE 4. John, (11037) is the son of a prominent Kansas physician. He is 30 years old. For a long time he has been queer, bashful, retiring, sensitive, very serious, not interested in other people, male or female. (This is characteristic of dementia praecox.)

He began to have some delusions, such as have been previously discussed, that he was associated with the high prelates of the Catholic church. He began to make notes from books which were so disconnected that no one could understand them. He wrote long letters which were meaningless and silly. As time progressed he became more and more stupid and silly in his talk. For example he said "I am a federal person. This makes me swear and abuse. I am a federal person and

I would not commit the sin of fornication." These things he would say to himself in a low voice sitting in a chair, his eyes cast down, his head hung, his hands rolling over his knees. He would often laugh quietly to himself or move his lips, wrinkle his forehead, adjust his coat, stare without winking for a long time, tap his mouth in a peculiar way, etc. He seemed to be absolutely indifferent to every thing that was said to him although he would answer and sometimes do so quite intelligently. It is important to remember that all these symptoms may occur without any loss of memory. This boy's memory was excellent, and he could repeat considerable poetry and was by no means ignorant of current events, classical literature and other matters.

The type of dementia praecox characterized by emotional lack is known as *hebephrenia*.

Last of all we come to the destruction of *volition* which shows itself in misconduct of the peculiar erratic, impulsive, contrary, and resistive forms so familiar to the psychiatrist and so unfamiliar to everyone else. It is the conduct of the mentally sick person which determines whether or not they should be committed to a state institution and the conduct of dementia praecox is usually such that commitment is necessary. This may be of almost any sort of thing. It may be homicide, suicide and other criminal offense or it may be the standing or lying in one physical position for days and weeks and months and years. One patient whom we thought was nearly well and who showed very few signs of the disease last week suddenly seized a hammer and applied it to the face of an unoffending friend without provocation.

To show the extremes to which these cases go I will cite the case of Minnie (Case 5) (10577). Her disease began with delusions that she had caused the influenza and that her children were burning up. She seized a knife and said that Jesus told her to cut her baby's throat. She sat down on a hot stove and said that she had to burn up, and almost did.

For a time she was very disturbed and noisy then for a time motionless for long periods. At the present time she presents a

most horrible spectacle. She crouches like a buzzard, her head bent over her knees, saliva drooling down her face, her gown soiled, her face mask like. She has to be fed by tube because everything that we attempt to do for her she resists, fighting with tooth and nail at times. It is these cases in the most severe stages which form the typical picture of insanity in the mind of the public. In such extreme forms they are rare but less severe types are very common.

It is an important fact to emphasize that the so-called violent patients are not numerous. At the Topeka State Hospital, which by the way is an institution of which Kansas should be proud because it ranks high among the institutions of the West—thanks in large part to the excellent direction of the Superintendent, Dr. M. L. Perry—there are at the present time about 1,500 patients and of these certainly less than 50 could be regarded as violent in the lay sense.

Cases characterized by volitional disorder are known as *catatonic* type of dementia praecox.

PROGNOSIS. If you will look in your text books you will find the prognosis given as practically hopeless. This, indeed, is the general viewpoint. With it I certainly do not agree. I have seen a good many patients upon whom a diagnosis of dementia praecox was absolutely positive who became as far as we could see practically or perfectly well. There have been a considerable number of such at the Topeka State Hospital where I have seen them with Dr. Perry and I have also seen them in my private practice as well as in other hospitals.

The truth of the matter is that there are probably three types of prognosis, but not corresponding to three types of dementia praecox illustrated above. There is a type of dementia praecox which progresses steadily and inevitably to severe dementia and which must be considered utterly hopeless in our present knowledge. This I call type one and it corresponds to the conventional picture first described by Kraepelin. There is a second type in which there are attacks of mental disease which certainly seems

to be dementia praecox, but from which the patients recover completely or almost completely only to have a subsequent or several subsequent attacks. I do not know what the ultimate outcome of these cases is. There is a third group mentioned above made up of patients who have typical dementia praecox who get well and stay well. I shall illustrate each one of these types.

*CASE 6, Illustrating type 1.

CASE 7, Illustrating type 2.

CASE 8, Illustrating type 3.

IMPLICATIONS

1. First of all I would emphasize the fact that these cases of incipient dementia praecox are constantly occurring unrecognized all about us. Unlike the feeble-minded multitudes which clog our schools and industries these people do all right up to a certain point and then go to the bad, often with much resulting damage.

2. The practical thing to do in these cases is that the diagnosis once made, the patient should be committed. There are very few exceptions to this rule. I have the less hesitation to make this statement because of the remarkable good provision in this state for the insane, like so many things at home I think so many of us do not appreciate, but from contact with numerous eastern and western institutions I can assure you that Kansas should be proud of what she has.

3. The third practical point I want to make is that we should have more facilities and opportunities for and interest in the subjects of research in mental diseases particularly in the matter of dementia praecox. We know little about the nature of the disease but the little that we do know is in every way encouraging toward the ultimate solution of the problem. Hence it is fairly safe to predict that some day we will be able to prevent many and cure many cases of what now must remain hopeless mental disease.

*Cases omitted to conserve space; but will appear in full with author's reprints.

—B—

Hand shaking on public occasions by public men should be prohibited. Aside from the physical fatigue, the nightmare of such prospective meetings is depressing.

Sterility in Women With Particular Reference to Endocrine Causation and Treatment

J. ROTTER, M.D., Parsons

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

Sterility is generally considered to be the result of those conditions which prevent fertilization or implantation of the ovum. Once, therefore, the ovum has been fertilized by the spermatozoon and implantation has occurred, sterility can no longer be said to exist. A woman who never gave birth to a living child but has had repeated abortions cannot be considered sterile. Authorities, however, differ on the interpretation of what constitutes sterility.

The causes for this condition, aside from those for which the condition of the male is responsible, may be divided into local and general. Under the head of local causes the following conditions should be considered:

1. Anomalies or the entire absence of any essential part of the genitalia.
2. Gross anomalies of the genital organs such as undescended ovaries, congenital atresia of the cervix or rudimentary development of tubes and ovaries.
3. Imperforated hymen from undue toughness or imperforation of the lower end of the vagina.
4. Stenosis of cervix, hypertrophy of cervix, stenosis of fallopian tubes, or displacements of uterus.
5. Exposure to x-rays (destroying the ova).
6. Infections of the genital tract caused by the gonococcus, streptococcus, pneumococcus, staphylococcus, tubercle bacillus, etc.
7. New growths in the vagina preventing coitus or new growths of uterus preventing implantation.
8. The surgeon's curette.

Under the head of general causes the following may be considered:

1. Malnutrition.
2. Debilitating diseases especially those which disturb the body metabolism, e. g., anemia, thyrotoxicosis, myxedema, Addison's disease, syphilis, etc.

3. Selective sterility or incompatibility where two individuals of opposite sexes are unable to procreate although each may be potent with another partner. Several such instances have been reported. One outstanding example is that of Napoleon Bonaparte who divorced Josephine because he thought she was barren. Both Napoleon and Josephine remarried and both had children by their second mates.

4. Physiological causes such as the periods of life before puberty and after menopause.

5. Disturbances of the endocrine organs.

From the foregoing one may conclude that some women never conceive; some conceive but become sterile later in life during their child-bearing period; while yet others conceive but are unable to carry a child to a viable age. The essentials to a fruitful intercourse are: that the spermatozoon and the ovum should be brought together, that each be normal physiologically, and that after being fecundated the ovum must be properly nested. The journey to the meeting place of the two cells may be often beset with many difficulties which may kill them before they arrive at their destination. To recite in detail all the causes and conditions which may destroy this union of the male and female elements would require more time than is allotted to this paper. On the part of the woman the ovum may not have been formed due to defective development; or, having been formed, was not extruded because of some diseased condition of the ovaries which may have been of inflammatory or neoplastic origin. The fallopian tubes may be sealed at the end or distorted by adhesions so as to prevent their taking up the extruded ovum. The trouble may be also caused by defective ciliary motion of the tubes. The uterus may be unfit for the reception of the fertilized ovum by reason of developmental defects, new growths or inflammatory changes. Malposition of the uterus may in instances be responsible for sterility. A pin-hole cervical os or one blocked with mucus or muco-pus from an endocervicitis is also a common cause. In many instances sterility is due to the expulsion of the semen from the vagina, this undoubtedly being caused by reflex contraction

of the sphincter vaginae muscle. Time forbids the elaboration of the various gross organic changes responsible for this condition. These, however, as well as their treatment, are to most of us, fairly well known.

Among the more recently discovered causes for sterility which are not so well understood are the various disturbances of the endocrine glands. These conditions and their treatment I wish to take up with you more in detail. Let us start with the period when menstruation begins, a period in which the ovary, pituitary, and thyroid are concerned. At every menstruation these three act or react, and according to the harmonious action of the three there is either a normal menstruation, menorrhagia, or a relative or actual amenorrhoea. The glands which deal particularly with menstruation are the ovaries; without them menstruation can not take place. The ovaries, however, are dominated by other glands of the body. The thyroid and pituitary glands are, as previously stated, intimately connected with the genital system, both aiding in the normal action of the ovaries and uterus. Before each menstrual period the ovarian secretion produces a gradually increasing hyperemia in the endometrium and in some of the other mucous membranes, such as the mucous membranes of the nose, larynx, and stomach. The thyroid and the posterior lobe of the pituitary react to this ovarian stimulation; hence there is a relative upset of the interglandular relation in many cases. A few of these patients complain of fullness of the breasts; some, of pelvic discomfort before the onset of the flow. Others, again, are irritable and depressed even to a degree of slight mania; a few cry or show outbursts of temper; some show unusual sexual manifestations; and some have headaches with or without nausea or vomiting. In short, these patients suffer constitutionally before each menstrual period. The more normal the individual's menstruation is in amount and character the less pain she suffers during menstruation; and the more normal we may consider the individual's endocrine system to be.

Putting aside the element of abnormal development, inflammations of the genitalia, stenoses of the channels, and abnormal sper-

matozoa, the question of sterility in women reduces itself to an unstable endocrine system. The first essential question to be answered is, is a ripe ovum thrown out? Between menstruations a ripening graafian follicle grows so that it reaches the surface of the ovary. It is separated from the peritoneal cavity only by a thin membrane. This membrane is dissolved by an enzyme contained in the fluid of the follicle and ruptures, allowing the escape of the ovum into the peritoneal cavity. Suppose a follicle lacks this enzyme, and it does not rupture, the ovum, therefore, is not liberated. If this process continues to repeat itself, the ovary then becomes studded with these follicles and prevents the approach to the surface of any future ripening follicles. The question arises why do certain ovaries lack this enzyme? From clinical observations I would say there is something wrong with the thyroid, adrenal, or pituitary, these being the glands which control the ovary in its activities. Now, suppose we are certain that an ovum is thrown out from the ovary each month and that the cilia are sufficiently active to get the extruded ovum into the tube; and suppose, moreover, we are sure from examination that normal spermatozoa are present, and that the ovum is fecundated, we still have another problem to consider, the embedding and nesting of the ovum. If the fecundated ovum cannot nullify the menstrual tendency blood is thrown out from the capillaries, and the fecundated ovum is expelled from the uterus. In other words, this fecundated ovum, by its inability to resist the menstrual stimulus fails to remain in the uterus more than a few days. We have all seen many patients who, occasionally or repeatedly, are a week or ten days over their period and then menstruate, undoubtedly representing this condition. From observation of the physiological action of the pituitary, especially of the posterior part we know that it is responsible for such a condition, and to counteract it we must, therefore, use the extract of the appropriate gland. Among the gland extracts used for that purpose are those of the thyroid, thymus, mammary gland, and the placenta.

By the proper selection of extracts it has

been repeatedly proven that the enzyme action necessary for the rupture of the graafian follicle, as well as for the nullification of the menstrual stimulus, has been obtained both in cases of sterility due to lack of the extrusion of the ovum, and also in repeated early or late habitual miscarriages. Those of us who have used the organic extracts for any length of time have had many patients who were grateful indeed for the correction of their childless condition. I will not burden you by citing many cases; but I do wish to give you an account of the patients who, in my opinion, illustrate three different conditions which prevented them from becoming pregnant or being pregnant, were unable to carry a child of a viable age.

Case No. 1. Mrs. M. P. F., American, aged 37, occupation housewife; married sixteen years. First seen five years ago. Her general health always had been good. Before the onset of puberty she was a good-sized fat girl. Her periods commenced at the age of 14 and she noticed no irregularity or any discomfort until after she was married. Within the first year after her marriage her flow gradually diminished in quantity until she menstruated very slightly from 1 to 2 days every 4 weeks. She also became irritable and cross about one week before the onset of her period. Her only other complaint was that she was sterile. A physical examination was made and no gross organic trouble was found. A diagnosis of ovarian and pituitary disturbances was made and she was placed on lutein and posterior pituitary extracts. She continued to improve for about 8 months; at the end of this time she returned asking that something else be done for her as the medicine had lost its effect since she had not menstruated for about 2 months. A bimanual examination revealed that she was pregnant. She has since then given birth to a perfectly normal child.

Case No. 2. Mrs. C. R., American, housewife, aged 33 years, married 9 years. First seen about 4 years ago. General health good, with the exception of eructations of gas for the past 8 years, which was not accompanied by any other gastro-intestinal disturbance. She had occipital headaches for the last 6

months and pain across the sacral region a good part of the time. She gradually gained in weight since the birth of her first child one year after her marriage, the gain being approximately 40 pounds. Her menses commenced at 16 years of age, flowing regularly every 4 weeks from 5 to 6 days; there was no pain except for a slight headache. Her flow at the time of her examination, was very scanty. She was cross and irritable for several days before the onset of the flow. As stated before she gave birth to a child one year after her marriage. Her gestation was unattended by any difficulties but her labor was prolonged for 48 hours; at the end of this time a dead child was delivered with forceps. She had remained sterile from that time, doing nothing to prevent conception. On account of her menstrual disturbance and sterility for the past 8 years, without any organic cause, I prescribed posterior-pituitary thyroid and lutein, which she took for about 5 months. She improved generally, became pregnant, and gave birth to a perfectly normal child. Her labor was prolonged for 24 hours, and she received two injections of one c. c. each of pituitrin two hours apart.

Case No. 3. Mrs. S. E. A., American, aged 33, occupation housewife, married 7 years. First seen about 2 years ago. Health fair, complained of shortness of breath on exertion, and occasional spells of abdominal cramps and passage of mucous shreds. The patient had miscarried 4 times at different periods of gestation. She began to menstruate at the age of 11 years, flowing irregularly for the first year, but became regular after that time. Her periods lasted from 3 to 4 days without any discomfort except for nervousness, irritability, and mental depression preceding the onset of the flow. A bimanual examination revealed nothing abnormal. A blood Wassermann test gave a one plus reaction. No procovative test was made. She was placed on thymus, mammary, and placental extracts. At the end of two months she became pregnant. Her period of gestation and labor were both uneventful and she gave birth to a living child.

SUMMARY AND CONCLUSIONS.

The cases cited are each different examples of sterility due to endocrine disturbances. Case No. 1, a case of primary sterility, is due no doubt to a hypofunction of the posterior part of the pituitary and ovaries. Case No. 2, a case of acquired sterility, is due to a disturbance of the ovarian, thyroid, and pituitary functions. Case No. 3, is an example of hyperactivity of the part of the posterior pituitary gland and ovaries as shown by too much trophic and stimulating influence upon the endometrium, thus interfering with the imbedding and retaining of the fecundated ovum. That the diagnosis made in the cases cited were correct was shown by the results obtained by the treatment. Careful analytical study is essential for the proper diagnosis of the various cases of sterility. A large number of patients without gross organic changes can be relieved of sterility by the proper selection and use of the endocrines. In cases where the ovaries have become cystic, thereby not allowing the deeper graafian follicles to reach the surface, surgery and endocrine treatment combined will give better results.

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"Do We Profit by Our Mistakes?"

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Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26-28, 1921.

The measurement of a surgeon's ability cannot be calculated by the mistakes he makes but his exact caliber is determined by the freedom with which he acknowledges them.

If we admit our individual susceptibility to them we are prepared to convert them into assets but so long as we deny this susceptibility they remain decided liabilities.

Our responsibility is not limited by what we do or don't do, but how we do it. We should, therefore, in so far as possible, endeavor to make our mistakes on the safest side.

In my earlier experience I lacked confidence feared the counsel of my colleagues who had had more experience, thinking perhaps I might have made some mistake which would be discovered and exposed. Here is where I invited disaster, for so long as I re-

mained in this position I was unprepared to meet the enemy regardless of which way I moved, for if I were wrong I was jeopardizing both my reputation and my patient's welfare and with slight chance of improving my position, while on the other hand a wise counsel could have set me right, relieving the patients' ills and my conscience, with a minimum amount of damage from exposure, which, after all was the lesser of the evils. If I was right I was courting unnecessary danger by fearing that which did not exist and reducing my mental vitality with the toxemia of mistakes.

As I acquired experience and began to welcome criticism I developed self-confidence and began to profit by my own as well as the mistakes of others.

Another mistake which I nursed until it developed into a monstrosity almost too large to wean was a carelessness in keeping case records.

The Doctor's "day book" has disgraced his standing in the business world, but it is usually a masterpiece of perfection when compared with his case history book. Now, this is not a shame; it is criminal negligence. The records of the cases treated by the average doctor, be he rural or city, if properly tabulated for ten years will contain more food for thought than his library. They are as necessary as the telephone and the automobile, just as remunerative, not a drudgery but a recreation.

I feel sorry for the surgeon who never loses a case because one of two things is certain, he either lies, or his courage slips when he meets pathology.

We are a mistake as a surgeon so long as we deny the patient with pathology the prerogative of an operation regardless the consequences. I do not mean that we should not give the sick patient the advantage of our best judgment. This is implied. But when we are face to face with certain disaster which an operation may avert we should have the courage of our convictions and push the operation home. The patient who dies while the surgeon is playing for an easy position free from danger is just as dead as the patient who dies as a result of an honest effort to

save him by operation and I admire the surgeon whose steel in his nerve is tempered to the same degree as that in his scalpel.

You may say for the sake of argument that there is no difference; they are both dead.

I would liken this to two soldiers, one who is killed in battle and the other who is shot for a traitor. It is true they are both dead, but to me there is a great difference—one dies facing the enemy, the other with his back to the wall; one is a fighter, the other a coward; the death of one is heroic, the other a disgrace.

By the following case reports I hope to throw some light into a pitfall which I descended.

A nullipara, age 19, was taken ten days ago with acute pain in the abdomen, at first generalized, but within a few days localized to the right side; the acute pain subsided in a day or two, but marked soreness has remained. She vomited two or three times at the outset and has run a little temperature every day. She had had three or four attacks in the past few months, has had the diseases of childhood, no other illness. Menstruation is regular, no pain last menstruation—five months ago. Family history is negative.

EXAMINATION: The abdomen is not distended but there is some muscular rigidity, especially on the right side and she is very tender in the right iliac fossa. No mass can be outlined. The uterus contains a living foetus. The urine is normal. Red blood corpuscles four million. White blood corpuscles fourteen thousand. Hemoglobin, eighty-five per cent. Coagulation time four minutes. Other examination is negative.

OPERATION: The appendix is adhered retroceally, base normal, distal half swollen, inflamed and filled with pus. It is removed. No other trouble is found. The abdomen is closed without drainage. Following her operation the first three days she took liquids freely, did not vomit and required no opiates. During the night of the fourth day she was restless and was given one-eighth grain of morphine. The next morning she was given an enema which was followed by a good bowel movement and one large emesis. The fifth day she had soft diet, good bowel move-

ment, vomited her supper at 6:30 p. m., at 7:30 p. m. was given fifteen grains of verinol, but had a restless night. The sixth day she had free emesis at 6 p. m. The seventh day she was nauseated and at 5 p. m. vomited freely, refused her supper, had castor oil and a restless night. The eighth day she vomited at 3 a. m., vomited breakfast, had frequent urination all day and 7:30 p. m. miscarried.

I will comment on her progress thus far as it marks the first stage of her post operative condition. During these eight days since her operation the temperature has never gone above 99.6 per mouth but some time during the twenty-four hours of each day it reached 99, which is evidence of slight infection until proven otherwise. The abdomen has distended a little at times but this was relieved by enemas and the bowels moved practically every day. She has been rather uncomfortable and restless at times but has only had one-fourth grain of morphine and fifteen grains of verinol since her operation, which is not as much as is required by the average case following simple appendectomy. Since the fourth day she has vomited every day but never more than once except on the eighth day she vomited three times. As a whole her condition was good and her disturbances charged to the approaching abortion.

On the ninth day she felt good, bowels moved three times and our worries on this case were charged to past events. The tenth day the bowels moved five times, at 5 p. m. she had free emesis, belched up some bad tasting fluid and gastric lavage was ordered. It was found impossible to introduce a tube passed the cardiac end of the oesophagus because of some constriction. The eleventh day she was slightly distended but complained of no pain in the abdomen. The stitches were removed, the wound was healed. At 12:30 a. m., 12:30 p. m. and at 9:30 p. m. she vomited. The emeses were quite copious and highly colored. The bowels did not move on this day and since the emeses were from nine to twelve hours apart and the bowels had acted so freely on the previous day the true value of the symptoms was not recognized. The twelfth day she passed a large amount of flatus. The distension in the abdomen be-

cause better and she did not vomit until 10 p. m., twenty-four and a half hours after her last emesis. The thirteenth day she vomited at 1 a. m. a brownish fluid which was very offensive and at 5 p. m., sixteen hours later, she had another emesis, free and very offensive. The abdomen had distended quite a little more in the last ten hours and for the first time I was able to outline a slight dullness over the iliac fossa. She had absolutely no pain and while she showed the strain of her long continued illness she certainly did not have the expression of a patient morbid from intestinal obstruction. An incomplete obstruction was diagnosed and it was decided to operate on her at once. A mass of adhesions producing a complete obstruction of the bowel three feet from the iliocecal junction and inclosing a small pocket containing about one ounce of thick yellow pus was found. Above the obstruction the bowel was greatly distended, while below it was so completely collapsed that the inner surface of the gut was agglutinated together reminding one of the fingers of a rubber glove which have been collapsed and stuck. All of the intestines were very dark and necrotic spots, some of which were almost perforated, were seen here and there throughout all of the small intestines. Immediately following the operation she suffered profound shock but soon rallied and twenty-four hours later she was in fair condition. She vomited once just after she returned from the operating room, she took forty-two ounces of liquids, passed a large amount of flatus, the abdominal distention nearly all disappeared, she had no pain, looked good and said she felt fine. Thirty-six hours after the operation she was suddenly seized with an excruciating pain in the abdomen and died in three hours. The immediate cause of her death was attributed to a perforation of a necrotic area in the intestinal wall.

CASE No. 2. A school girl, age 8, was taken sick with German measles; I was consulted by 'phone but did not see her. The fourth day of her illness I was called to see her because she had developed a high temperature and found her suffering with follicular tonsilitis. Three days later I was again called to see her,

this time on account of a pain in her abdomen, her mother stated that she had complained of stomach ache during the night. This was attributed to some indiscretion in her diet. At 8 a. m. she was complaining of severe pain in the abdomen which is general and she was unable to localize it to any particular region. The abdomen was soft and no tenderness could be found. At 3:30 p. m. the pain suddenly became agonizing and I was recalled to her bedside. This time I found the entire abdomen very rigid and she was complaining of so much pain that I was unable to make a satisfactory examination. She had a white blood count of twenty thousand and a diagnosis of a perforated appendix was made. She was removed to the Hospital and immediately prepared for operation. The peritoneum presented a very marked congestion. As soon as it was opened a large amount of thin gray fluid escaped. The appendix was gangrenous and perforated. A fecal concretion, the size of a chili bean, was found free in the region of the appendix. There were no adhesions or attempts at walling off, the whole peritoneal cavity was infected and very much inflamed. The wound was drained with a number of cigarettes and rubber dams and left open. Owing to the over crowded condition of the Hospital she was removed to her home on the third day. Ten days later she returned to the Hospital and a pelvic abscess containing a quart of very offensive pus was drained through the original incision. She was removed to her home on the same day. One month later she developed a well marked chorea. On the thirty-sixth day following her last operation she vomited four or five times in rapid succession. This subsided following an enema. Five days later, which was forty-one days after her second operation, at 4 a. m. she began to vomit and between then and 11 a. m. she vomited six or eight times. I saw her at 2 p. m. and while she had no distention in the a. m. it was then quite marked. She had not vomited since 11 a. m., had absolutely no pain and did not look much, if any sicker, than she did the previous day. She laughed and waved goodbye to her playmates and was apparently as happy as if she was going to a Sunday school

picnic. However, the horrors of the mistakes in the previous case in which I was a victim of procrastination, the thief of time, still haunted me and I was now anxious in so far as possible to redeem my mistakes and reap the profits for which I paid such a tremendous price and even though there was an absence of pain and the vomiting was not persistent and progressively growing worse, a diagnosis of mechanical obstruction due to inflammation and adhesions was made and I decided to operate while she had a fighting chance. The pathology of the previous case was here pictured in its early stage as a mass of adhesions of a similar nature had produced a complete mechanical obstruction. This was released, patient obtained immediate relief and made an uneventful recovery.

The scope of this subject is so broad that I might carry its discussion much further, but the object in reporting these two cases was to emphasize one point, which until confronted with disaster I had not recognized, that is, while as a rule patients with complete mechanical obstruction of the bowel vomit persistently and the vomiting progressively grows worse until they are either relieved or exhausted, but when the obstruction is the result of infection and inflammation the scene may be changed and the patient allowed to pass the operable stage if we depend upon this symptom as a guide to their condition. If I have succeeded in impressing this one point, my efforts have not been in vain, as in so far as I know all previous teaching and literature have failed to demonstrate this point.

—R— Vitamines

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Read at meeting of Kansas Hospital Association,
Newton, Kan., Oct. 20, 1921.

We have heard so much of vitamins in the last year that it seems it could be considered a closed subject, and yet a subject so vital is wellnigh inexhaustible and should be considered in relation to many phases of life. Instead of being mysterious and uncertain elements in our food, they have come to be known as a positive and most necessary part of what we eat. Considered in this light, it

is important that those having the care of the diets of the sick should acquaint themselves thoroughly with these comparatively recently discovered and not too well known elements of food.

Since the time of the great Liebig we have known that foods for human beings consisted of proteins, carbohydrates, fats and mineral salts. To refresh our memory, proteins are the lean meats, eggs, cheese and foods of that class. Carbohydrates are the starches—bread, potatoes, rice, sugar, syrup, etc., which constitute the largest part of our diet. The fats include the animal fats, such as lard and tallow, the vegetable oils, such as olive oil, cottonseed oil, oleomargarine and butter. Mineral salts are found in water and most vegetable foods.

It was calculated by scientific experts just how much energy a man of a certain size and doing a certain amount of work would expend, and just how much food of the different kinds he would require to keep up this waste and keep his proper weight. Not many years ago Professor Atwater announced that the whole question of diets was finally solved and that he could tell just how much food anyone of a certain size, doing certain kind of work, would require and how much of each kind. You will find tables showing the number of calories or heat units in any certain amount of food. The Child's Restaurants used to publish the number of calories contained in each article of food, printed on their menu cards. All this is instructive and really worth while. No doubt many of us might find that some of our meals were deficient in the real number of calories required for our work and some of them were far too rich in protein or some other one of the kinds of food that we want.

But in the last few years we have learned a new principle which has revolutionized the subject of diet. Until lately it was supposed that a certain quantity of fat was equivalent to a certain other quantity of fat, and that proteins were practically alike, also carbohydrates. It was the actual experiments with the foods themselves which taught us that there was another principle underlying the whole thing. There is something in certain

foods which is vital and necessary to life and health, that may be in one food and is not found at all in another, even though the food be perfectly good in every other way. Funk calls these protective foods *vitamines*. Dr. McCullom, of Johns Hopkins University, has made over 3000 experiments of feeding men and animals and has done more perhaps in this field than any other man. Dr. McCullom finds there are three kinds of *vitamines*—he calls them *fat soluble A*, *water soluble B*, and *water soluble C*. The exact chemical composition of these *vitamines* has not been isolated, and when it is they will probably be given proper chemical names.

Fat soluble A is found in the greatest abundance in milk and butter,—it is also in the yolk of the egg and in leafy parts of vegetables, especially spinach. It is found in the glands of the body, such as the liver, kidneys, the brain, blood and bone marrow,—and this, no doubt, is why the Eskimo can live with little or no milk, because he eats all the gland substance, blood and bone marrow of the animals he kills.

Water soluble B is found in oranges and all the leafy plants. Our domestic animals keep healthy because they eat plenty of leafy foods and are not fed on grain alone. Lard contains practically no *vitamines*. The same is true of olive oil, nut fats and all vegetable fats, while butter is particularly rich in *vitamines*.

Oleomargarine, unless made partly from milk or washed in milk, contains no *vitamines*. It is a crime to feed oleomargarine to children and it should never be considered as taking the place of butter. Many intelligent people eat oleomargarine because they believe it is clean and wholesome. It is, no doubt, a good food but will not promote growth nor the preservation of health, and is absolutely deficient in the one thing that butter contains. Rats were fed on 5% of vegetable oils and failed to make proper growth, but when 1½% of butter was substituted for the 5% vegetable fats, the rats immediately gained their health and proper growth.

Experiments were made with nursing mothers and it was found that unless their food contained these *vitamines* they could not pro-

duce milk for their children, and the children would not grow and develop. It is as important that the nursing mother or prospective mother shall be fed plenty of vitamins as it is that the child shall have them in his diet. The offspring of animals and of human beings that have insufficient vitamins in their food are few, far between and unhealthy.

Our millers grind the grain and in bolting the flour take out the germ which is fed with the bran and shorts to our stock. We learned long ago that this was a very valuable feed to produce growth in animals, and the germ alone in grain has any vitamins in it. If the germ were left in the flour, the flour would not keep in hot weather and could not be shipped long distances, therefore it is necessary for the miller to remove the germ from the flour. Then it is the fashion to have a white bread, but there is much more protein in brown bread and whole wheat flour. Also cornmeal will not keep unless the germ is removed, but when it is removed the corn is robbed of its vitamin, and you must add milk or butter to make it a health food. Potatoes, beets and all tubers growing in the ground are absolutely deficient in vitamins. It was known years ago that soldiers and sailors fed on canned goods, bolted flour, and who did not have fresh fruits and fresh vegetables, became sickly until these foods were supplied.

Certain countries that have been deficient in dairy products have developed diseases. In our own southern states where dairy products are scarce, we have now 6,500 cases of pellagra, caused by lack of vitamins in the food. Dr. Goldberger proved this by taking eleven perfectly healthy volunteers. He fed them on flour, cornmeal, starch, pork fat, sugar, syrup, sweet potatoes, turnip greens and coffee. You would think this quite a varied diet that should keep any one in good health and flesh, but in five and one-half months on this diet five of the eleven developed pellagra, which immediately disappeared on adding milk and butter to the diet. I suppose we will never know how many cases of stunted growth, hardened arteries, high blood pressure and early decay, have been brought on by an insufficient diet. From these experiments we see how important it is that our hospital dietary

should consist of plenty of fresh cow's milk, butter or other fresh dairy products, for certainly a diet that is necessary to keep people well must be as necessary to help sick people back to health.

Beef tea is supposed to be nourishing and well adapted to sick people. Many people imagine that beef tea will keep up the strength. As a matter of fact, it is worth little as nourishment—it has only the flavoring of the beef and the heat of the water to recommend it.

Milk is not only the greatest food known but it is the only food which will alone maintain life and health. McCullom experimented with pigs, feeding them nothing but whole milk for one and one-half years. At 13 months they weighed 406 pounds each and were perfectly healthy. It is known that pastoral people have a longer life, a lower infant mortality and are of larger stature than others. Milk substitutes, such as malted milk and condensed milk, are only to be used when real milk is not obtainable and never to take the place of milk when it can be obtained.

Dr. McCullom says that cooking or heating milk in no way injures or destroys the vitamins, so milk may be used in cooking and for soups and in different ways when you cannot get your patients to use it plain. He says that every child, as well as grown person, should consume a quart of milk a day. Many patients have a dislike for milk and will object to taking it, and it is a matter of trying in various ways and by flavoring milk differently to get them to take it. One will usually succeed if the effort is persistently made.

Buttermilk is a very valuable form of food. It not only contains vitamins in great quantity but contains a bacteria which overcomes the putrefaction bacteria found in the intestines from eating too much meat or protein foods. Most sick people will gratefully receive a glass of buttermilk with meals or for lunch between meals. The use of tea and coffee is to be discouraged. If they cannot be eliminated entirely from the routine diet, at least reduce them to the minimum amount that the patient will bear.

While milk and butter are such valuable foods and so necessary for health and growth,

yet milk may be the carrier of disease instead of health. Warm milk is particularly adapted to the growth of disease germs. In Boston in a short time nineteen epidemics were positively traced to impure milk. Typhoid fever, scarlet fever, sore throat of all kinds, and especially tuberculosis, are carried by milk. In Chicago in five years there were twelve epidemics that were traced to milk. Then an ordinance was passed compelling pasteurization of all milk, and three and one-half years after the passage of the ordinance there had not been a single milk-borne epidemic. The State Board of Health sent an expert to trace the origin of a typhoid fever epidemic in Jewell County and it was found to come from the sale of ice cream sold by one woman who got her milk from a dairy where there was typhoid fever.

Tuberculosis in its various forms is probably the most common disease that we have. Tuberculosis in cows is a peculiar disease. The peculiarity is that it does not usually hurt the cow. She may be fat and apparently in good health, but she is giving tubercular milk and this may be spread, especially to children, and those in depleted health, who are much more subject to tubercular infection than others. If tuberculosis in cows were like the foot-and-mouth disease, repulsive and could be seen by every one, we would stamp it out in a few months. It is not very many years that we have had tuberculosis among our Kansas cows. The testing of dairy cows in Kansas began about 15 years ago. Dairy cows in the East are kept in barns summer and winter, do not always have sufficient sunlight, and they have been shipped in large numbers to Kansas and have spread tuberculosis in this country. Most dairymen test their cows for tuberculosis once a year, but the cows may become infected between tests and tubercular milk distributed in this way. A dairyman of my acquaintance had a fine herd of cows and his monthly milk test showed the lowest amount of dirt and bacteria of any milk tested in the town. He sold this milk at 17c to 20c a quart and it was called "Baby Milk." However, between tests of his cows, tuberculosis got into his herd and before it was discovered he had been selling tubercular milk to the babies

of the town for several months. Many such examples might be given. Typhoid fever may be spread through a community in another way. In Butler County an old gentleman went every day to bathe a neighbor who was sick with typhoid fever, a very charitable thing to do. After he would bathe the typhoid patient he would go home and milk his cow and sell the milk. Fifteen cases of typhoid fever developed from this source alone.

Now what are we to do? There is only one way to be perfectly safe and that is to pasteurize your milk. There may be three kinds of bacteria in milk. The lactic acid which is normal and in time causes the milk to sour. There may be disease germs from the cow or from the attendants, or milk vessels, or the water used to wash them.

These germs will positively be killed if the milk is heated to 145 degrees for 20 to 30 minutes and the milk will be safe from disease germs, including tuberculosis.

What are the disadvantages of pasteurizing milk? There are some disadvantages. Pasteurizing may change the taste of milk a trifle, as heating the milk sugar gives it a slightly burnt-sugar taste. This you soon learn to like instead of dislike—it is only an evidence of purity in the milk. Pasteurization also affects the cream on the milk. It loses its thickness or viscosity. You have seen cream come off of a crock of milk almost in one large mass. Pasteurized cream is thin and will run. It has lost its viscosity, but it has lost nothing else. It is as valuable and as rich in every way as it was before it was pasteurized. The cream will not rise quite so rapidly, but the cream is all there; the pasteurizing does not destroy any of it. Many people think that cream is the most important part of the milk and that all the rest of the milk is of little value. This is a great mistake. The most value is in the whole milk—not in the cream; in fact the cream may be the cause of many digestive disturbances. Generally when milk disagrees with an invalid or a baby, it is because it is too rich and should be diluted. Pasteurizing does not injure the digestibility of milk. Do not understand me to say that pasteurization should be substituted for perfect cleanliness in the handling of milk. The

first requisite of good milk is that it be handled as nearly aseptically, as we would say in surgery, as is possible. Your dairymen must be educated to handle their milk with a surgical conscience, for the same rules apply to handling milk that apply to surgery. Perfectly clean handling and pasteurization are parallel to asepsis and anti-sepsis as we know it in surgery. The bacterial count of milk may be low, even below the requirement of any board of health, and still the remaining bacteria may be of the deadly varieties, so if we would have safe milk we must have it not only clean but pasteurized as well. Since milk and dairy foods must be our main source of vitamine supply for the sick and well alike, let us make sure that our supply is clean and free from contamination.

— R —

LAW FOR THE DOCTOR

LESLIE CHILDS

Liability for Failure to Diagnose Dislocation or Fracture

(Copyright 1919, by Leslie Childs.)

Alleged failure to diagnose fracture and dislocation has been the starting point of a considerable number of damage suits against physicians and surgeons. In fact, this particular phase of alleged malpractice has been so thoroughly thrashed over in court rooms that a reading of the reports on cases of this kind would tend to qualify even a truck driver as an expert on dislocations and fractures.

About the only undisputed fact threading its way through the entire argument appears to be that a fracture is in many cases extremely difficult to discover. This fact alone has saved quite a few physicians and surgeons from having to shoulder judgments for alleged malpractice. But once in awhile there appears a case wherein the action of the defendant physician have been so apparently at variance with the customs of the medical profession that even this fact fails to save him. Such a case was that of Foote vs. Bonnet, 47 Col. 282. The case is an interesting one not only from the point of the facts therein but from the method of defense, or

rather lack of defense, employed by the defendant.

Emma Foote, the plaintiff, fell upon the sidewalk one evening and Dr. Bonnett, the defendant was summoned, arriving a few minutes later. He found the patient suffering severe pain, and expressed the opinion that she had sustained a fracture, but advised her that he would not make an examination until the following morning. The next morning he called and examined her hip by feeling it with his hands and concluded that the injury was a severe bruise and not a fracture; thereafter he treated her for a bruise.

He called and treated her twice a day for about two weeks, and thereafter once a day for about one month, and after this period occasionally for about two months. During this time he made frequent examinations of the injured limb, took measurements to ascertain whether or not it was shortening, but at no time regarded the injury as anything more than a severe bruise. The patient was confined to her bed for about four weeks; thereafter she was able to walk with crutches, and about four months after the injury she had sufficiently recovered to go to Santa Fe, where she remained for several months.

She was compelled to use crutches, or a crutch and cane, for about eighteen months, after the injury, and thereafter she used a cane only. She suffered pain more or less for about two years at the end of which time it passed away but would occasionally return. The injury caused a shortening of the right limb of from two to three inches.

During the trial of the case a physician and surgeon testified for the plaintiff substantially as follows:

That about five years after the injury he examined the injured limb, aided by an x-ray photograph, and that this examination showed that the plaintiff had sustained a fracture of the neck of the femur. He admitted that in a fracture of this kind it was often very difficult to ascertain whether there had been a fracture or not; and further, that a severe bruise in the vicinity of the neck of the femur would produce practically the same pain as a fracture. He also detailed the usual method adopted by surgeons for ascer-

taining whether or not, when the hip is injured, a fracture exists. It appeared from the testimony that Dr. Bonnet had not adopted this method, nor done anything more than has been stated. During the examination of this witness he was asked:

Q. Doctor, if a patient with an injured hip lie on the back and her foot turns over to one side, what is the indication?

A. Might be a fracture, might be a dislocation.

Q. Would it be one or the other?

A. One or the other.

Q. The indication would be that it was either a dislocation or fracture?

A. Yes. That is, if there was inability to put it back again in place.

The plaintiff was recalled as a witness and was asked:

Q. You may state to the jury what position your foot—the right foot—assumed after this injury, when you were lying there on your back.

A. It lay over on the side.

Q. Did Dr. Bonnet ever see it lying over on the side?

A. Yes, sir. He said he did not like it, although he could not understand why it did that.

Q. Did he straighten it?

A. He straightened it up, and it fell back again.

Q. Did you have any control over it to keep it up from falling back?

A. None whatever.

There was no testimony from the defendant, or in his behalf, that would controvert the facts and evidence as given above for the plaintiff. In summing up the court in part said:

"From these facts and evidence it is clear that the injury to plaintiff's hip was a fracture instead of a mere bruise, and the question to determine is whether or not it appears that defendant was guilty of negligence in diagnosing and treating her injury, * * * the law implies that a surgeon * * * possess that reasonable degree of learning and skill * * * which is ordinarily possessed by others of the profession; second, that he will use reasonable and ordinary care * * * to accomplish

the purpose for which he is employed; * * * either defendant did not possess that degree of learning and skill which the law requires of surgeons, or, if he did, he failed to exercise ordinary care in applying it."

The Supreme Court thereupon affirmed the judgment for \$1,500 damages that had been awarded the plaintiff in the lower court.

—R—

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Dr. Ralph H. Major

Department of Medicine

ACUTE MYELOGENOUS LEUKEMIA

Dr. Major: This patient whom we have to present today is a typical example of a rather rare disease. It is a case of great interest because it shows all the essential features of this disease; it is of especial importance because it demonstrates anew that a few moments of intensive study are often of more value than many days of casual observation. This disease is not only rare in occurrence, but is unusual because here an exact diagnosis can be made in a few moments. Let us now have the history of the case.

Student: This patient is a man, age 42 years. He was admitted to the Bell Memorial Hospital on October 19, 1921, complaining of "weakness and aching all over." The patient was obviously somewhat mentally confused at times so that the history as first obtained was not accurate. Additional details and corrections were later obtained from other members of the family.

Personal history: Always a hard working man, a cooper by trade. He had measles and whooping cough as a child. No history of venereal infection.

Present illness: The patient dates his present illness from September 19, 1921. At that time following a hearty meal he was suddenly seized with severe abdominal pains and felt so acutely ill that he went to bed. Two days later a physician was called who found that the patient had a high fever, and suggested that he might be suffering from influenza. There was little change in the patient's condition during the following week, and the tentative diagnosis of typhoid fever was

made. Yesterday the patient was seen by another physician who realized that he was very ill, and advised admission to the hospital. The patient was admitted to the medical service last night, one month after the onset of the present illness. .

Dr. Major: What do you think of the diagnosis of influenza?

Student: I think it was incorrect.

Dr. Major: In view of the subsequent course of the disease it was undoubtedly incorrect. This patient has had no respiratory symptoms although he has been ill for a month, and has had fever all the time. At the onset, however, the diagnosis of influenza was not so easy to exclude. Influenza not occurring during an epidemic is at best difficult to diagnose. Most of the cases, it is true, begin with symptoms of great prostration followed by symptoms of respiratory irritation, but occasional cases are seen in which gastro-intestinal symptoms dominate the picture at the onset.

What were the grounds for making a diagnosis of typhoid fever?

Student: The fever, delirium, and rose-spots.

Dr. Major: Any patient having a continued fever creates the suspicion of a possible typhoid fever. We have no record of the patient's temperature before he entered the hospital. The temperature chart, since his admission here shows a high fever varying from 101.8 to 103 degrees, but also a rapid pulse. This is not the typical typhoid chart where we see a high temperature with a relatively slow pulse; although we do often see such charts as this one when a patient is extremely toxic, and there is severe damage to the myocardium. The appearance of this patient suggests typhoid in some ways. He is obviously delirious, at times lying in a stuporous condition; at other times attempting to rise from his bed. There is twitching of the fingers—*subsultus tendinum*—and he picks at the bed-clothes. Abdominal palpation shows an enlarged spleen which can be easily felt three fingers breadth below the left costal margin, and also an enlarged liver at least four fingers breadth below the right costal margin.

This patient has brownish red crusts on his mouth as though he had spat up small quantities of blood at times, and the family state that he has passed blood by rectum on several occasions. This history of an intestinal hemorrhage suggests the possibility of typhoid hemorrhage.

The so-called rose-spots which were noted before his entrance to the hospital merit closer study. This patient shows a rather profuse crop of small red spots over the abdomen and chest but unlike the typical rose-spots of typhoid, these spots are not minute, elevated papules and they do not disappear on pressure. Also as we look closer we see that similar pin-point red spots are present in the palpebral conjunctiva of both eyes.

What is the correct description of these spots?

Student: *Petechiae*.

Dr. Major: Yes, and in what disease do they occur?

Student: In sub-acute infective endocarditis.

Dr. Major: This is one of their most important associations. They are especially frequent in the endocarditis due to the *streptococcus viridans* studied so thoroughly by Libman and his associates. It may be of interest to note in this connection that we have had two cases of endocarditis under observation last year, in both of whom severe intestinal hemorrhages were the symptoms which caused the patient to apply for admission to the hospital. A blood culture was done on this man last night, but it is, of course, too early to report the result since the *streptococcus viridans* if present might not appear in the culture for several days.

Examination shows that there is no cardiac enlargement, and the heart sounds are clear, This is strong evidence against an endocarditis, but it is not conclusive. We occasionally see cases of sub-acute endocarditis in which there are no cardiac murmurs present, because the vegetations are on the walls of the heart, and not the valves.

The correct diagnosis of this case was made by an examination of the blood. When Dr. Rennie drew up a small amount of blood to make the blood count, the mixture was so

cloudy that he thought the blood pipette had not been properly cleaned. He filled another pipette and again, instead of the clear reddish mixture, obtained a cloudy whitish fluid. A glance at the mixture under the microscope showed that there were enormous numbers of leukocytes in the field, and a complete blood count showed red blood cells 3,300,000; white blood cells 368,000, hemoglobin 45%. The excessive leukocytosis made the diagnosis of leukemia almost certain. The degree of leukocytosis is made particularly graphic when we note that this patient has one white blood cell to every 10 red blood cells; while in the normal blood the ratio is 1 white cell to 600 red cells.

High degrees of leukocytosis are encountered at times in infectious diseases. One occasionally sees counts of 40,000 and 50,000 in pneumonia and sepsis; rarely counts of 100,000 are noted. I once saw a pneumonia patient with a leukocytosis of 200,000. This case was reported by Austrian. Fletcher and Sappington report a case of polynuclear leukocytosis of 134,000. Such cases are, however, excessively rare, and no count above 300,000, as this patient has been described, except in leukemia.

The observation that this patient's blood when drawn up into a pipette, was cloudy and milky in appearance gave the clue to the diagnosis even before the blood count was made. Similar observations were made by the earliest students of this disease, and in 1845 Bennett described this condition as "suppuration of the blood," and believed it to be due to inflammation of the blood, "haemitis." Virchow described the disease in the same year, and gave to it the name leukemia. The literature on this subject usually states that the disease was discovered simultaneously by Bennett and Virchow, but Virchow himself states that neither he nor Bennett discovered the disease, for a case was described by Barth in 1839, and Donne in 1844 noted the characteristic blood picture.

The differential count of this patient's blood showed:

Polymorphonuclear neutrophiles..	0
Polymorphonuclear eosinophiles ..	0
Polymorphonuclear basophiles....	0
Small mononuclears.....	2.5%
Large mononuclears.....	0
Transitionals.....	0
Myeloblasts	86.5%
Neutrophilic myelocytes.	11%
Eosinphilia.	0
Basophilia	0

The most striking cell in the blood smears is a large cell with a single nucleus and contained rather coarse granulations which stain purple with Wright's stain. There is little difficulty in identifying it as a young myelocyte or myeloblast. These cells when stained by the oxydase method of Shultz show blue granules, a further evidence that they are myelogenous and not lymphatic in origin.

It was at one time believed that practically all cases of acute leukemia were of the lymphoid type, and it was pointed out that the most severe cases of the acute form were those in which the large mononuclears were increased in number. Later studies have shown that the large cells interpreted in many cases as large lymphocytes are really of myelogenous origin, and we should recognize that acute leukemia as well as chronic leukemia, presents two well-defined types, the lymphatic and the myelogenous.

The oxydase reaction of the leukocytes has attracted much attention the past ten years, and it is of importance in differentiating between cells of myeloid origin which contain the oxydase and those of lymphatic origin which do not. Rosenthal, who has recently studied the subject thoroughly, expresses the opinion that the oxydase reaction is not conclusive evidence of the myeloid origin of blood cells, as it may be absent in such cells. He also emphasizes that the best means of identifying the leukemias is a careful study of well-stained preparations. In this patient such a study shows definitely that he has an acute myelogenous leukemia, and the positive oxydase reaction is confirmatory evidence.

The question has been raised whether this patient may not have typhoid fever in addi-

tion to acute leukemia. This brings up the interesting query as to what the blood picture of such a complication would present. We know that a patient suffering from typhoid fever and lobar pneumonia—which is not a rare combination—may have a leukopenia. Combinations of leukemia with acute diseases are rare. Dock reported a case of chronic myelogenous leukemia complicated by typhoid fever in which the white count fell from 367,000 to 5,000. Pal has reported a case of leukemia complicated by typhoid fever in which the count fell from 991,000 to 650,000. Dock concludes that in the great majority of cases of leukemia complicated by some intercurrent infection there is a fall in the number of the leukocytes.

Intestinal hemorrhages, the classic complication of typhoid may occur in leukemia. In some patients these hemorrhages are due to capillary oozing similar to that under the skin, while in others they are due to ulcers in the intestine. In our patient here there is no particular reason to suspect typhoid. The whole clinical picture is well explained by one diagnosis.

The cause of this truly terrible disease remains unknown, although seventy-seven years have passed since its discovery. Some pathologists regard it as a neoplasm of the blood, others suspect an infectious origin. It is interesting to note that this disease occurs in fowls and Schmeisser has transmitted it from one chicken to another by intravenous and intraperitoneal injections of liver and spleen emulsions.

This patient is obviously in extremis. Acute leukemia runs a rapidly downward course, and no therapeutic measures are known which check this course.

On October 21 the following morning at 4:45 a. m., the interne was called to the floor and found the patient gasping for breath. The patient had just passed a large quantity of fresh blood from the bowels, and the petechiae over the chest and abdomen were more numerous. Examination of the eye grounds showed numerous fresh retinal hemorrhages; the pupils were dilated, and the arms were limp. Respiration failed first; the heart sounds gradually became fainter, and

the patient died at 5:25 a. m. This final picture suggested the diagnosis of cerebral hemorrhage which is occasionally seen as a complication.

An autopsy was performed on this patient by Dr. Wahl, and the pathologic diagnosis was:

Myelogenous Leukemia, acute.

Ulcerative and Hemorrhagic Ileocolitis.

Hemorrhage into brain (Right ventricle).

Purpura.

—————R—————

Why is it (asks an ex-Kansas physician) that Kansas is an almost unknown section of country in "Medical News" in the Journal of the American Medical Association?

The practical freedom from risk of anaphylaxis that attends the administration of Diphtheria Antitoxin and the possibility of giving an adequate number of antitoxic units in an injection of small bulk are due to the manufacturing refinements instituted by such commercial laboratories as that of Parke, Davis & Co.

The Antidiphtheric Serum put out by that firm is noted for high potency, the absence of non-essential proteins, and a minimum content of total solids.

A substantial group of eight concrete buildings in North Chicago looms as evidence of the growth that is said to follow true service. When the war cut off the import of medicinal chemicals used quite generally by physicians in this country, The Abbott Laboratories were among the first to provide for the urgent home demands. Such drugs as Barbitol, Procaine and Cinchophen were produced in this period by its chemists under license from the Federal Trade Commission. Since that time there has been a continuously increasing demand for these and other high-grade synthetics, under the Abbott label, necessitating an enlargement of manufacturing space and facilities. Along with this, the research department of the firm is being enlarged and valuable new agents for the physician's use are being developed. The executive offices of The Abbott Laboratories will be maintained at the present address, 4739-53 Ravenswood Ave., Chicago.

THE JOURNAL

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W. E. McVEY, M.D. - - Editor

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"On Earth Peace, Good Will Toward Men"

While the nations of the world are endeavoring to establish peace on earth, the disciples of Aesculapius are preparing to continue a war of extermination—not of mankind, but of the enemies of mankind. While the envoys of peace are collaborating on the terms of disarmament, the Aesculapian hosts are devising new and more effective instruments of warfare.

This is a war in which no armistice can be anticipated, a war which great victories do not terminate, a war in which more lives have been lost than in all the wars of men against men in all the ages. Our armies in the World War met no enemies more ferocious or more ruthless than the various epidemic diseases that have at one time or another devastated every land. The inventive genius of the Hun contrived no method of warfare that could compare with the maiming, mutilating and destructive power of the omnipresent venereal diseases; all that the secret devices of his world wide system of espionage could threaten did not approach the damage wrought by that most insidious enemy of mankind, tuberculosis.

Our forces are in every land, our spies in every stronghold of the enemies, searching for the identity of those yet unknown and yet unseen. This is a war against the intangible.

a war of extinction largely against unseen and unknown enemies.

With every discovery our courage mounts, with every success our hope grows strong that ultimate victory will crown our efforts and that health will succeed to sickness and distress, joy to tears and happiness to misfortune, and to every man the promise that ere he hears the rustle of the angel's wings a kindly old age will have prepared him for everlasting peace.

Then let every recruit be taught to read emblazoned on the banners of the Aesculapian hosts: "On earth peace, good will toward men."

—R—

Interrupted Progress

It has been quite definitely shown that the tonsils play an important etiologic role in many of the most serious and damaging affections of the human structure. It has been *claimed* that in the tonsils and the teeth lie the causative agents of every disease from bald headedness to ingrowing toe nail.

In spite of the great importance which has been given to the etiologic role of these anatomical structures in their various pathologies, little if any effort seems to have been made to determine the factors which lie behind the dangerous pathology of these organs. Even the theorists are alarmingly quiet on the subject. One of these, however, has the temerity to suggest that diet may play an important part in the prevalence of adenoids. Because adenoids are noticeably common in children of English parents and since these children eat largely of sugars and starches, ergo, an excess of sugar and starch in the diet tends to produce adenoids.

One may also note an attempt to establish a relationship between social conditions and the state of the teeth, but the statistics available for such an investigation are not sufficiently explicit to be of value.

Analysis of cause and effect cannot have reached its terminal stage in the discovery of the relation of diseased tonsils to diseases of other structures of the body. Whatever the functions of the glands may be, they were assuredly never intended to be the purveyors

of disease germs to other organs and other tissues.

If one assumes that the normal tonsil is a potential element of danger then one is perhaps justified in removing a normal tonsil as a prophylactic measure. If on the other hand it may be determined that pathologic conditions of the tonsil may be prevented or may be removed before other tissues of the body have been affected, no justification for such a prophylactic procedure exists.

Etiologic progress has been interrupted and has stayed too long at the tonsil. It is time that some one discovered the etiology of these dangerous pathologic conditions of this organ.

—R— Questionable Evidence

In courts of law there is sometimes considerable dispute as to what is and what is not evidence, but the judge or the jury finally determines its relative value. In medicine each student must decide for himself the value of the evidence submitted. Apparently conclusions are very frequently reached which are not justified by the evidence at hand. In many case reports the diagnosis made, though possibly correct, is not justified by the evidence presented.

In an article recently published in one of our exchanges the following statement is made: "This patient had three apical abscesses *which caused* a pyelitis, a urethral discharge of pus without pain on urination, and finally a tendosynovitis." A summary of the report of the case shows the first examination on September 19 on which a urethral discharge, purulent but microscopically negative to gonorrhoea was found. Examination of teeth showed abscesses at the roots of three teeth. Two were extracted September 25. He was given large quantities of water and seven and a half grains of urotropin every four hours. October 4 had yellow morning drop from urethra during preceding interval. Urotropin continued and hot foot baths added. October 9 third diseased tooth extracted. October 18 had slight watery discharge from urethra. On November 23, 47 days after the extraction of the last diseased

tooth, the patient returned with "the anterior aspect of his right ankle swollen, red and painful without any visible external lesion." This was diagnosed as tendosynovitis and treated accordingly and the patient was able to return to work on February 24, more than three months after the extraction of his last diseased tooth.

This report is cited as an illustration of many hundreds that have appeared in various medical journals in which certain claims made for etiology, diagnosis or treatment could not be justified by the evidence offered. In many cases, perhaps, the authors have arrived at correct conclusions but have not recorded or reported sufficient data to convince their readers that they are justified in the conclusions reached. In other words, one's clinical experience may be priceless to himself and valueless to another. It is a noticeable fact that very few clinical reports of cases are made in which the evidence is sufficiently definite and complete for positive judgment without the postmortem findings. Since many of these reports come from clinics where every facility for careful examination is afforded and where the examining physicians are experienced, systematic and thorough, the clinician cannot be accused of being negligent in recording all of the data found—he does not find them. The diagnosis is most frequently made from the most prominent symptom and the clinician's intuition. What that means in definite medical terms some one else may say, but that a practitioner of extended experience acquires a diagnostic acumen which is almost uncanny in its readiness and its correctness will be readily admitted by many. Some years ago a prominent surgeon of large experience made a diagnosis of cancer of the stomach in a case in which none of the usual symptoms of this condition had been noted and in which there were at no time any evidences of disturbances of function of the stomach or intestinal tract, but on post mortem the diagnosis proved to be correct.

Years of careful, painstaking observation taught the men of yesterday something the men of today and tomorrow might, with profit to themselves, add to their skill in laboratory technic. Since the men of yesterday

had to depend upon what they saw and felt and heard, they saw more, felt more and heard more than we of today who have more accurate means for determining definite pathologic conditions. But when our technical aids fail to give us a clue the observer of yesterday might point the way—might tell us at least where to look.

Give to the observers of yesterday the instruments of precision, the laboratory procedures with the x-ray, and the percentage of misdiagnoses would be much lower than it is. Give to the men of tomorrow the powers of observation cultivated by those of yesterday to use with the instruments of precision and the laboratory aids they will have and the percentage of misdiagnoses must be nil.

In a majority of cases a diagnosis—tentative diagnosis we now call it—is made before much of actual evidence has been obtained, but few men would now have the temerity to write out the observations which suggested the diagnosis. Having arrived at a diagnosis, an effort is made to find sufficient evidence to support it. It is unscientific and uncertain, but it is a more common practice than will readily be admitted.

Since such diagnoses are not always the result of long and careful observation and since the diagnostician is too ready to confirm his diagnosis on only a part of the evidence obtainable, clinical reports are very frequently unconvincing to the reader.

—R— CHIPS

The education of the medical practitioner is too extensive and not enough intensive.

The only 1,000,000 volt power releasing machine (?) is on the campus at Pasadena, Cal.

It is estimated that if the convolutions of the normal brain were spread out that they would cover a space of four square feet.

It matters not under what therapeutic name a physical agent or thought agent travels, if it helps to make the patient well, it is the duty of the physician to use it.

If you suspect a man, don't employ him. If you employ him, don't suspect him. Physicians should teach their patients as much.

The man who wears a tight belt can't breathe normally. He eventually acquires sag belly and deformities of his "innards."

There is nothing new under the sun. A man has patented a machine recently that detects lying. Dr. Minney says that it is nothing new. He married one over fifty years ago.

Dean Harlan L. Stone of the Law School of Columbia University, in his annual report, recently made public, says, "Medical and legal education affords a contrast discouraging to law. While high standard American medical schools are drawing more students, high standard law schools are drawing less.

Some of our statisticians tell us that thirty-three per cent more men die of tuberculosis than women. And that thirty-three per cent more women die of cancer than men. Webster says the word "statistician" is obsolete. Credit us with the antique?

Why are some persons lean and others fat? Scientists tell us it is because lean persons have short intestines and fat people have long intestines.

Abnormally short intestines prevent full assimilation of food, "the loss being so great, thin people require one-third more food than stout people." A serum to prevent the rapid passage of the food in the intestine will, no doubt, be on the market soon to give the skinny man a chance to economize in food, and one also to relieve the fat man of his burden by increasing peristalsis.

Motor Terms. Muffler: A device to keep down noise; used by people when admitting their faults. Cut-out: A device to open the muffler and make a racket; used by people when speaking of their virtues.—(Pathfinder.)

When is a doctor a physician? Ans. When he is intelligent enough to take "truth for authority and not authority for truth." It is the same in religion that makes a religious man.

Dr. Robert T. Williams reported over 200 cases of tuberculosis, before the tuberculosis section of the Los Angeles County Medical

Society, treated by intra-muscular injection of isopropyl-metacresol (thymic acid) with excellent results.

Alienists are correct in their diagnosis as often as the practicing physician. This gives him a standing of 50-50 in his rightness and wrongness. The encouraging feature of it all is the chance for improvement.

The National Health Exposition, occupying 60,000 square feet of floor space, will be held in the Jefferson County Armory at Louisville, February 1-9, 1922. This is under the auspices of the United States Public Health Service, State Board of Health of Kentucky, Jefferson County Board of Health and the Health Department of the City of Louisville. It will include exhibits in hospitalization, nursing, dentistry, medicine and pharmacy. The University of Louisville, the public school system, and various local, state and national health organizations will participate.

The annual conference of the city and county health officers, the annual convention of the Kentucky State Public Health Association and other health meetings are already scheduled in connection with the Exposition. An institute will be conducted by the United States Public Health Service.

S. Hiraishi and K. Okamoto (Japan Medical World) have reported the results of some experiments in prophylactic inoculation against measles. A number of children were inoculated. Blood was drawn from the median vein of a patient sick with measles. This was diluted with a 1% citrated saline solution to a ten thousandth solution and 0.5 to 1.0 cc of this was used for the first inoculation and a second inoculation, three weeks after the first.

It was found that the minimum morbid dose of the infected blood was between 0.001 and 0.002 cc. The prophylactic inoculation conferred a certain degree of immunity—sufficient to protect children over and under five years of age against the injection of the minimum morbid dose of infected blood. It did not immunize them against the natural infection, but those who contracted measles

four weeks after the inoculation had a milder course of the disease.

The authors believe that by giving a second inoculation of 0.001 cc to those under five years of age and 0.002 cc to those over that age will probably increase the immunity, although this has not yet been established.

England has considered the question of venereal diseases for many years. The results obtained by the Ministry of Health through these years of experience warrant the continuance of such activities. A recent circular of the Ministry, addressed to local authorities urges the continuance of these principles. The educational, legal, recreational, and medical measures must go on.

In the medical field, various problems have arisen, particularly during and since the War. In a few areas, ablution or disinfecting centers have been instituted to provide for the disinfection by skilled attendants, of persons who have exposed themselves to the risk of infection. In England during the War, an Interdepartmental Committee appointed by the Ministry of Health came to the conclusion that although certain drugs if skillfully applied can prevent venereal disease, the prophylactic packet and the instruction of men as to its use did not produce such a general reduction as to warrant its recommendation by the government. It was found, however, that when preventive treatment was provided by a skillful attendant, the results were better. A Special Committee of the National Birthrate Commission of Great Britain unofficially took up the question and came to the same conclusion.

The question which confronts the British government is that there is no unanimity of opinion on the medical side as to the practicability of self-disinfection for civilian population, whereas on the moral and social side there are most weighty objections advanced against it. This question is one in which the moral and social consideration, as well as the medical, are important. In the circumstances the British government has decided that it cannot give official support to self-disinfection as a policy. The Ministry of Health is of the opinion, however, that the arguments

which have influenced the British government in deciding against this measure, do not apply to the provision of ablution centers. Final conclusions as to the value of such centers cannot be drawn, but experience thus far, warrants the continuance of the experiment.

Flater cites a case to show that we are not justified in basing our prognosis solely on results of the blood examination. In the reported fatal case in a man of 63 there was a marked incongruity between the blood picture and the intensity of the disease, since at death the hemoglobin content was still 58 per cent and the erythrocyte count 2,600,000. Usually, death results in pernicious anemia only when the blood picture falls below the point at which life can be maintained.—Flater, A., "Blood Findings in Pernicious Anemia," *Zentralblatt für innere Medizin*, Leipzig, Aug. '21 (*J. A. M. A.*, Nov. '21, page 1692.)—(M.)

In Austria, country practitioners are paid in "kind." For a consultation at the doctor's office he receives five kilos of grain, or a kilo of meal, or half a kilo of butter or lard, or the equivalent in money. Doctors in Austria evidently must maintain storage facilities and keep well posted on the market.

—R—

REFLECTIONS

BY THE PRODIGAL

LOCAL ANESTHETICS

"Deaths from local anesthetics are increasing and especially during the past two or three years."

Some of the following reasons or causes for the increase of fatalities in the use of local anesthetics may be: Its more general use—more people to use it on and in. Increased number of minor accidents due to multiplicity of hazardous occupations. Lack of experience in its use. Familiarity in its use breeding carelessness. Impurity of the drug. Carelessness in preparing the solution for injection. Lessening of the resisting power of the patients as shown by the examination for military duty, the large per cent of the young men not being fit for a man's job. Or more

general and accurate statistics. The probability is that more deaths occur from local anesthetics than have been reported.

My first knowledge of the local anesthetic effect of cocaine was in the autumn of 1884 when I was taking a course on the eye, ear, nose and throat in New York City.

Dr. Mittendorf anesthetized a cornea with it and did a cataract operation without pain to the patient. Its discovery created great excitement and comment in the profession at the time and the laity felt that the age of miracles had returned.

We began the use of cocaine as a local anesthetic in eye, ear, nose and throat work in June, 1885, and quit its use on September 7, 1909, when I walked out of my office never to walk in again.

During that time, 24 years, I feel safe in saying it was used in our office and practice (after the fourth year there were two and later three of us in the office) forty thousand times without a death. Exceptionally were there any untoward effects. In a few cases there was unconsciousness produced or fainting as the patient called it. In these cases the most of them gave a history of fainting spells. These fainting spells occurred almost invariably in nose and throat cases. The treatment consisted in placing the patient on his back on the floor.

I do not recall that a hypodermic injection was ever given to one of the patients affected or any other means used for his recovery. The countenance, eye, pulse and breathing were noted carefully. The effect seldom continued more than one to three minutes and the patient as a rule wanted to get up within that time which was prohibited. When the countenance showed the return of blood, the eye, heart action and breathing became normal, which was usually in from one to five minutes, we helped the patient to get up and continued the work, using no more of the anesthetic.

Hence we conclude that if there is an increase in the death rate from the use of local anesthetics, it is caused by some of the reasons given, and particularly to the impurity of the drug. "I know of no lamplight by

which my think works trek along but that of experience." Moral: Don't get careless in the use of local anesthetics.

MORONS

Los Angeles has some 5,000 moron pupils in her schools. This is, probably, a fair proportionate estimate of moron pupils in America.

Eight hundred of these pupils are segregated and cared for but the remaining forty-two hundred are scattered throughout the schools of the city. Herculean efforts are now being made in the city to educate these unfortunates and to make them self supporting. A conference of educators will be held in the city, beginning December 21, 1921, to tell "How to Educate Subnormal Children." Psychologists of national renown will be present and tell how to do it. These efforts are highly commendable and it is the bounden duty of society (as constituted) to get busy and meet the obligation it has assumed. This humane work must be done and all credit and honor is due these workers and philanthropists. To the medical man, occupying the relation he does to the scheme of human life, as it is, the necessity for so much work and for so many of these unfortunates with their increasing number is an enigma.

It is dealing with the effect instead of removing the cause. The more humane effort would be to combine the prohibition of the unfit to beget their kind by sterilizing them with these altruistic educational efforts.

Better children to educate instead of better educational facilities for children is the better twentieth century slogan.

INTELLIGENCE TEST

A story of the records of the intelligence tests applied to American soldiers shows an average intellectual development which is considered normal for a 14-year old boy.

On reading the foregoing statement the first impression is, "it is not true." It is a hard jolt. However, the shaking up will do good. Cold blooded scientific facts may be likened to the laws of nature and know no mercy.

The intelligence test is based on statistics. These statistics in America are of comparatively recent date. What a study of these same

intelligence tests would have shown if they had been applied to soldiers fifty years ago is not known. But, in all probability, they would have compared to a present day 12-year-old boy.

Immorality, greed and the love of pleasure have interfered with the intelligence of youth but with it all progress has been made.

Edison has been conducting some intelligence tests and claims that not more than 2 per cent of the adult population can understand a self evident fact when it is put before them. This condition has always existed but it was not known. It is the normal condition of the human mind. It has been suspected for the past generation. It is being found out, now, definitely. Finding it out is progress.

—————R—————

SOCIETIES

Osborne County Medical Society

One of the most interesting and instructive meetings of the Osborne County Medical Society was held in the Wooley Hall, Wednesday, November 16, with the following members present: Drs. A. C. Dillon, B. F. Chilcott, H. W. Nye, Porter Brown, F. W. Ogg, J. E. Henshall and S. J. Schwaup. Visiting doctors were C. S. Kenney of Norton, E. E. White of Cawker City, H. S. Dreher of Luray, and F. E. Kunce of Tipton.

Dr. Kenney gave the doctors a very interesting paper on "Early Diagnosis of Tuberculosis." His being Superintendent of State Tubercular Hospital at Norton, besides being a first-class talker, made it well worth while for the members to come a good distance to hear, and the society voted him a hearty thanks.

Dr. E. G. Mason of Cawker City, Councilor for this district, had prepared a paper on "Value of County Medical Society to Profession and Community." Dr. Mason, having sickness in his family, was not able to be present, but the paper was well read and discussed by his partner, Dr. E. E. White.

Dr. Porter Brown had such an excellent paper on "Benefits from County Hospital," that the society thought it wise to have it

published in our county paper, and it was so voted by the society.

A very nice informal lunch was prepared in the hall after the program, and a short social time was enjoyed by the doctors present.

S. J. SCHWAUP, Secretary.

Eye, Ear, Nose and Throat Society

The Kansas City Eye, Ear, Nose and Throat Society held its regular monthly clinic meeting at St. Margaret's Hospital, Kansas City, Kansas, and Bell Memorial Hospital, Rosedale, Kansas.

The guest of the Society, Dr. H. W. Woodruff of Joliet, operated upon twelve cases, four cataracts, four muscle cases (on two of which he did his tendon tucking operation with his new tendon tucker), one Elliot for glaucoma, one Hatz for entropion, one tear sac extirpation and one iridectomy for total occlusion of pupil.

At noon time St. Margaret's Hospital tendered the visitors a buffet luncheon.

At the Bell Memorial Hospital Dr. Sam Roberts of Kansas City gave an ear, nose and throat clinic.

In the evening a dinner was held at the Muehlebach Hotel. Dr. Woodruff gave a moving picture demonstration of his operation for paralytic squint, also tucking operation for squint. The subject was discussed by Dr. R. J. Tivnen of Chicago who was a guest of the Society.

A report of the cataract cases operated by Colonel Smith on his June visit in Kansas City was made by Dr. J. W. McKee.

The next meeting will be held December 15 at which time papers will be read by Drs. W. H. Schutz, J. S. Weaver and R. J. Curdy.

The Society is made up of ophthalmologists, and otolaryngologists from Missouri, Kansas, Oklahoma and Arkansas.

Finney County Medical Society

The regular monthly meeting of the Finney County Medical Society was held November 29, 1921, with ten of the membership present.

Four new members were reported for acceptance by the Board of Censors. Dr. Hastings of Garden City, Kansas, and Drs. C. O.

Rogne, W. E. Mowery, G. M. Gafford, all of Scott City, Kansas, were taken into membership.

For the program of the evening Dr. Hastings gave a paper on "Intestinal Obstruction with a "report of three cases."

The cases were enlarged upon by Dr. Bailey leading the discussion. General discussion was taken part in by Drs. Edwards, Rewerts, Neal and Blanke. Dr. Hastings is to be congratulated for the able presentation of his case reports and for the very satisfactory results obtained in all of the three.

The next meeting will be December 27, 1921. Neighboring physicians welcomed.

R. M. Troup, M.D., Secy.

Shawnee County Society

The regular monthly meeting of the Shawnee County Medical Society was held Monday evening, December 5th, at the Elks' Club. About 50 members enjoyed the dinner. The following officers were elected: M. G. Sloo, President; H. B. Hogeboom, Vice President; Earle G. Brown, Secretary; L. H. Munn, Treasurer; C. E. Joss, Member Board of Censors.

EARLE G. BROWN, Secretary.

DEATHS

Marquis L. McAlilly, Hutchinson, aged 69, died October 30, at Cloverdale. He graduated from the Missouri Medical College, St. Louis, in 1880.

E. E. Isenberg, Manhattan, aged 52, died October 22. He graduated from Barnes Medical College, St. Louis, in 1899.

William Beebe, Columbus, aged 69, died October 4, from a bullet wound in the head, presumably self-inflicted. He graduated from the Medical College of Ohio, 1887.

BOOKS

History of Medicine, with Medical Chronology, Suggestions for Study and Bibliographic Data, by Fielding H. Garrison, M.D., Lt. Col. Medical Corps U. S. Army, Surgeon General's Office, Washington, D. C. Third Edition, Revised and Enlarged. Octavo of 942 pages with 257 portraits. W. B. Saunders Company, Philadelphia and London, 1921. Cloth, \$9.00 net.

The third edition, second revision of this History of Medicine has appeared. We believe the work is authentic and complete. It

seems, however, unfortunate that a history should need to be revised. Since history accumulates it is essential that supplements should be made to our records, but since history does not change there seems no reason for a revision. In the interests of readers of medical history, and as an economical proposition, two revisions of a history which first appeared in 1913 should be enough.

Nostrums and Quackers. Articles on the nostrum evil, quackery and allied matters affecting the public health reprinted with or without modifications, from *The Journal of the American Medical Association*. Volume II, illustrated, 832 pages. Published by the American Medical Association, 535 N. Dearborn St., Chicago, Ill. Price, \$2.00.

Ten years ago the American Medical Association published the first edition of the first volume of this book. A year later a second, and enlarged edition of the first volume was issued. Since that time *The Journal of the American Medical Association* has published, week by week, articles on the nostrum evil, quackery and allied matters affecting the public health. All this material has been collected and appears in the present volume.

Quackery can never be defended; the "patent medicine" business, however, need not be fundamentally fraudulent. There is a place for home remedies for the self-treatment of simple ailments. Unfortunately, the home remedies of today are, generally speaking, those secret nostrums commonly called "patent medicines" and the methods of "patent medicine" promotion make these products a menace to the public health. The average "patent medicine" is so advertised as to frighten well people into the belief that they are sick for no other purpose than that of causing them to purchase the nostrums.

The present volume is a veritable encyclopedia of information on the subject it treats. The book contains nineteen chapters. The titles of some of these are: "Alcohol, Tobacco and Drug Habit Cures," "Consumption Cures," "Cosmetic Nostrums," "Deafness Cures," "Epilepsy Cures," "Female Weakness Cures," "Nostrums for Kidney Disease and Diabetes," "Medical Institutes," "Miscellaneous Nostrums," "Obesity Cures," "Quackery of the Drugless Type" and "Tonics, Bitters, Etc."

This partial list of chapters gives but a poor idea of the vast fund of information contained in the book. To make the volume still more valuable it contains an index of twenty-two pages, two volumes to the page, which includes references to every article appearing in the first volume of "Nostrums and Quackery" as well as to all articles in the present volume.

The book is free from stilted or highly technical language. The articles have evidently been written with the idea that the facts they contain belong to the public. In the Preface, it is emphasized that the work which this volume represents is wholly educational in character—not punitive. "The matter that appears in this book has been prepared and written in no spirit of malice and with no object except that of laying before the public certain facts the knowledge of which is essential to a proper conception of community health."

The Life of Jacob Henle, by Victor Robinson, M.D. Published by Medical Life Company, New York. Price, \$3.00.

The author has succeeded in making a very readable and a very interesting story of the life of Henle. It is intimate and personal but it also presents a general idea of the incentives and the influences which have moulded character and directed the lives of men in all ages. It is well to read the stories of these men from the author's viewpoint, for one sees the man as well as the teacher.

The Spleen and Some of Its Diseases. By Sir Berkeley Moynihan, of Leeds, England. 129 pages with 13 full page diagrams. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$5.00 net.

This volume by Moynihan should awaken considerable interest dealing as it does with some of our most difficult problems. As the author suggests, the spleen plays a considerable part in the etiology of diseases whose most conspicuous symptoms are evoked by associated or consecutive affections of other organs. The author discusses the anatomy and surgery of the spleen, its functions, its pathology, and the clinical and associated phenomena of splenic diseases. He gives a chapter each to pernicious anemia, leukemia,

Hodgkin's disease, splenic anemia, and hemolytic jaundice, and a chapter to Gaucher's disease, von Jaksch's disease and polycythemia.

Surgical Anatomy. By William Francis Campbell, M.D., Surgeon-in-Chief at Trinity Hospital, Brooklyn, N. Y.; sometime Professor of Anatomy and Professor of Surgery Island College Hospital. Third Edition, Revised. 681 pages with 325 original illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$6.00 net.

The author says: "The purpose of Surgical Anatomy is to present anatomic facts in terms of their clinical values, and thus properly appraise those structures and regions which have a practical interest for the surgeon."

He has, without question, made this volume of inestimable value to the surgeon and of intense interest to many who may not be thus distinguished. The illustrations are particularly instructive.

Principles of Medical Treatment. By George Cheever Shattuck, M.D., Assistant Professor Tropical Medicine, Harvard Medical School. Fifth Revised Edition. Published by W. M. Leonard, Inc., Boston.

This edition contains some contributions which should add something to its value. Dr. John B. Hawes has contributed a chapter on tuberculosis and Dr. Edwin H. Place has contributed a discussion on acute infectious diseases most common in children. The article on influenza was written by Dr. Gerald Blake. The chapter on diabetes mellitus is supplied by Dr. B. Harrison Ragle, and Dr. H. M. Thomas, Jr., has contributed an article on the serum treatment of pneumonia. The subject matter is carefully condensed and all the material that could well be expected in a book of 300 pages will be found.

Diseases of the Skin. By Henry W. Stelwagon, M.D. Ninth Edition revised with the assistance of Henry K. Gaskill, M.D., attending Dermatologist to the Philadelphia General Hospital. 1313 pages with 401 text illustrations and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

The ninth edition of this work has been revised and now appears after Dr. Stelwagon has passed away. The work of revision was completed by Dr. Henry K. Gaskill who had been requested by Dr. Stelwagon to assist him.

Several new subjects have been added—acrodermatitis hiemalis, endothelioma, espundia, keratolysis exfoliative, amebiasis cutis, and folliculitis ulerythermatosa reticulata. Many new illustrations have also been added.

R GORGAS MEMORIAL

Institute of Tropical and Preventive Medicine to Be Established in Panama

Of particularly deep interest to all members of the Medical Profession and to all others interested in questions of Public Health and Sanitation is the recent announcement of the plans of the Board of Directors of the Gorgas Memorial for the establishment of a Memorial Institution in the City of Panama for research and the extension of means of prevention of tropical diseases.

Anyone who has seen the old Panama at the time of the abandonment by the French of the work of the first canal, involving so much wasted energy, the loss of thousands of lives and some hundreds of millions of dollars, could not but be struck with the present aspect of Panama, its splendid sanitation, its beautiful cities, its five hospitals, and above all, by the completion of the Panama Canal itself, making Panama one of the most beautiful and salubrious spots in the world.

It is well known to members of the medical profession that the accomplishment of this great work and the sanitary regeneration of Panama are due to the efforts of the late William C. Gorgas, Surgeon General of the United States Army, and to his efforts, more than to any other, success for the work must be accredited.

Coupled with his earlier work in Cuba, the accomplishment of General Gorgas in conquering Yellow Fever and Malaria and conclusively demonstrating the fact that health, even in the tropics, is a purchasable commodity has sent forth his fame throughout the world. Perhaps no single life has done more for the good and well being of humanity, and his great attachment for Panama has made the proposed Memorial to carry on the work he so ably started, the most practical tribute which could be conceived to his memory.

The honor for the conception of this idea and of bringing it into actual existence belongs to Dr. Belisario Porras, the President of the Republic of Panama, who in the name of his government has tendered the site, a building, and all required equipment, valued in all at approximately \$500,000. At the request of Dr. Porras, Admiral Braisted, formerly Surgeon General of the United States Navy, with the co-operation of others aequally interested in making this Memorial possible, incorporated the Gorgas Memorial Institute for the purpose, in addition to directing the scientific work, of raising an endowment fund of five million dollars for maintenance. The following officers and directors were elected:

President, Rear Admiral W. C. Braisted, U. S. Navy (Retired); Vice President, Dr. Franklin Martin, Secretary General American College of Surgeons. Directors: Dr. Belisario Porras, President of the Republic of Panama (Founder); Dr. A. S. Boyd, Chief of Surgical Service, Santo Tomas Hospital, Panama; Surgeon General Hugh S. Cumming, United States Public Health Service; Surgeon General Merritt W. Ireland, United States Army; Honorable John Bassett Moore, Judge of the International Court of Justice, The League of Nations; Honorable Leo S. Rowe, Director General, Pan-American Union; Surgeon General E. R. Stitt, United States Navy.

Dr. Richard P. Strong of Harvard University, chosen to head the Scientific Board, will be assisted by Admiral E. R. Stitt and Lieutenant Colonel J. F. Siler. Other members of the Scientific Board will be announced at an early date.

The Advisory Board, of which Secretary of State Hughes is Honorary Chairman, consists of the diplomatic representatives of all the Central and South American countries and representative committees of the leading national medical and surgical associations, public health boards, and many Southern Societies by which Gorgas was beloved.

The proposed Memorial will be built adjacent to the new two million dollar Santo Tomas Hospital, and the use of its complete facilities has been tendered the Gorgas Me-

morial to aid in the launching of the work.

The Memorial Building itself will consist of a dignified classic structure patterned after the lines of the Pan-American Union in Washington, D. C. It will house the laboratories and provide facilities for the teaching of students from the various tropical countries and from our own leading schools of tropical medicine, such as Harvard, Johns Hopkins, and the University of California.

In commenting upon the field of work before the Institute, Admiral Braisted stated that among the diseases which will be studied in addition to yellow fever and malaria, are dengue, pellagra, beriberi, leprosy, cholera, and the various mycoses. It is the consensus of opinion that tremendous advances can and will be made through the efforts of the research work in this field.

The Tropics, which are so prolific in vegetation of every kind, have been equally fertile in the development of all types and kinds of dread diseases, which tended to make them unsuited and impossible of habitation until careful sanitation made them safe. They then can become the most desirable, the most attractive, and the most prosperous of abiding places. This very fact has made the City of Panama extremely desirable as a home for the work to be undertaken.

The humanitarian benefits to accrue from the establishment of this wonderful tribute to General Gorgas are almost beyond conception. Its complete success means the fulfillment of General Gorgas' greatest desire, that of eliminating these devastating tropical diseases, and at the same time is a fitting recognition of the worldwide importance that the Profession of Medicine played in the construction of the Panama Canal.

—R—

Intraspinal Therapy in Neurosyphilis

The author states that the purpose of this paper is to try to remove some difficulties and to help to clear thinking in the problem of neurosyphilis. To this end, he utilized the opinions of various authorities in the field. Fildes, Swift, Sachs, Stoner, Doreum, and Fordyce are quoted extensively.

It would appear from the material in hand,

that it is safe to accept the following conclusions:

1. The central nervous system is early invaded by the *treponema pallidum*, and without necessarily giving clinical signs.

2. Vigorous intravenous salvarsan treatment associated with mercury and the iodides removes the danger in a larger number of cases. This must be confirmed by negative findings in the cerebrospinal fluid.

3. Certain cases do not respond to this treatment alone.

4. For these cases the best treatment so far devised, but not ideal, is by the Swift-Ellis-Ogilvie method because various observers agree that clinical evidence shows it to be beneficial and the laboratory evidence is that in all but potential paretics the signs become negative if thoroughly carried out, and because both avenues of approach are employed.

5. That the method of Byrnes (mercurialized serum) is more dangerous and produces severe reactions.

6. That the drainage method of Doreum is not without danger, is extremely painful, and the results obtained by observers are not in agreement.—Eugene Bordeau, M.D., Medical Record, September, 1921.

—R—

Unrecognized Infections in Production of Carriers of Pathogenic Organisms

Charles F. Craig, Washington, D. C. (Journal A. M. A., Sept. 10, 1921), deals with the subject of the contact carrier, the one who has been in contact with the patient and who presents no appreciable symptoms of disease. While it is generally believed that contact carriers have never suffered from the diseases due to the parasites they are carrying, Craig calls attention to the fact that a very considerable proportion of them have presented, at one time or another, symptoms which were undoubtedly due to the parasite they carry. While there is no question that many individuals who have never shown any appreciable symptoms of infection become carriers of pathogenic organisms, it is equally true that many so-called contact carriers have, in real-

ity, suffered from symptoms of infection, and are, in effect, convalescent carriers rather than contact carriers of the specific parasite. This class of carriers originates from unrecognized cases of contagious or infectious disease, cases in which the symptoms of the infection were so slight or atypical as to mislead the physician, or cases that have caused the patient so little inconvenience that medical advice was not sought. A considerable proportion of contact carriers belong to this category, and the recognition of this fact is of value to the physician, as it should lead him to a more careful consideration of apparently trivial symptoms and to greater utilization of laboratory aids in the diagnosis of their cause. Craig urges more frequent employment of blood cultures and microscopic examinations of the blood in cases of undetermined fevers; of throat cultures in the apparently mild inflammations of the throat and nose; and of microscopic examination of the feces in patients suffering from diarrhea and other intestinal symptoms, to detect these infections and prevent their spread.

—R—

Pulmonary Abscess in Adults Following Tonsillectomy Under General Anesthesia

In discussing the possible dangers of tonsillectomy, hemorrhage, both primary and secondary, looms as one of the risks. Yet, when measured by the possibilities of fatal issue, Lewis Fisher and A. J. Cohen, Philadelphia (Journal A. M. A., Oct. 22, 1921), assert that pulmonary complications, such as lung abscess, would be of greater importance by far. Seventy-six cases in the literature, including five of their own, are analyzed. Seventy-four of the seventy-six patients were operated on under general anesthesia, and so far as known, ether was used. All of the cases with the exception of four occurred in adults. Of the cases in which detailed physical findings were available, the favorite site of the lesion was the right lung, either the midlobe or lower lobe being involved. The possible causes of complication are discussed; but the authors do not believe that any one cause is operative

in all cases to the exclusion of the others. It is undoubtedly feasible for a lung abscess to result from the aspiration of an undue amount of infective material; faulty technic certainly plays its part; other factors also enter. In their opinion, however, the most potent cause of this complication is the introduction either through the lymph or the vascular circulation of infected emboli which find lodgment in the lung structure. The one outstanding fact is that out of this series of seventy-six reported cases, seventy-four of the patients, or practically all, were operated on under general anesthesia. On the other hand, thousands of operations have been performed under local anesthesia, without a single complication, which seems to be convincing evidence that the general anesthetic, whether acting directly or indirectly, is the determining factor in the causation of this complication.

—————R—————

Etiologic Factor in Angioneurotic Edema

In the opinion of Frederick Myles Turnbull, Duluth, Minn. (*Journal A. M. A.*, Sept. 10, 1921), there exists a great similarity between angioneurotic edema and certain anaphylactic reactions. Asthma and certain bronchitic conditions may be merely anaphylactic reactions. Sinus infections and nasal polyps may result in a respiratory picture very similar to the ordinary anaphylactic reactions. It is quite conceivable that there may exist an etiologic factor in these chronic nasal sinus infections, with the accompanying polypoid change, which may cast much light on anaphylactic manifestations in general.

—————R—————

Quinidin Treatment of Auricular Fibrillation

Eleven patients have been treated by A. W. Hewlett and J. P. Sweeney, San Francisco (*Journal A. M. A.*, Dec. 3, 1921), with quinidin, the observations being controlled by frequent electrocardiograms. Six patients failed to recover a normal rhythm, although one of the six developed auricular flutter for a brief period during the treatment. One patient re-

covered a normal rhythm for only a brief period. In another, whose paroxysm of fibrillation had lasted two and a half days, the rhythm became regular after a very small initial dose of quinidin had been taken. The remaining three patients that were successfully treated had had fibrillation for some months, and a normal rhythm has persisted up to the time of making this report. Many patients recover a normal rhythm with no disagreeable or alarming symptoms. Loss of appetite with perhaps slight nausea or even vomiting, palpitation, increased heart rate, and a small and soft pulse are not uncommon effects of the drug. More serious symptoms may occur either with or without warning. One patient with palpitation, increased heart rate and precordial uneasiness, fainted when she sat up. Alarming collapse has been recorded several times. Several fatalities have been reported. In none of these was the drug clearly responsible for the death. In view of the possible dangers associated with its administration to cardiac patients, quinidin should be given only after decompensation has been treated by other methods, after an exact diagnosis of the cardiac condition has been made, and when the patient is kept under careful observation. Combinations of quinidin and digitalis should probably be avoided.

—————R—————

Effects of Administration of Quinidin Sulphate in Auricular Fibrillation

Quinidin sulphate has been administered by Walter W. Hamburger, Chicago (*Journal A. M. A.*, Dec. 3, 1921), in seven cases of chronic auricular fibrillation and one case of paroxysmal auricular fibrillation. Four cases of chronic auricular fibrillation, with advanced heart failure, failed to respond to quinidin with the establishment of a normal sinus rhythm. In three cases of chronic auricular fibrillation, without advanced heart failure, the normal cardiac mechanism was restored with varying amounts of quinidin. In one case, the restoration was permanent (four months). The other two cases relapsed to fibrillation at varying intervals after quinidin was discontinued. The case of parox-

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ysmal fibrillation under quindin showed distinct periods of shortening of the duration of the paroxysms, and gave evidence of prevention of recurrences during its administration. In the transition between fibrillation and sinus rhythm, in the successful as well as the unsuccessful cases, a moderate tachycardia, retardation of the auricular rate and evidences of impure flutter were found. Synchronously with the establishment of sinus rhythm, a bradycardia of varying intensity has been noted. Hamburger emphasizes that, for the present, quinidin sulphate is primarily of use in studying the mechanism of fibrillation of the auricles. He therefore believes it desirable to sound a warning against the use of quinidin as a general therapeutic procedure for the treatment of various types of disorderly heart rhythm. When it is used, it should be considered a problem of clinical investigation, with careful observation and controls and judicious use in the question of dosage.

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Quinidin in Auricular Fibrillation

B. S. Oppenheimer and Hubert Mann, New York (Journal A. M. A., Dec. 3, 1921), have collected all the published cases from the medical literature that was available and have summarized the results of the treatment, and they present a detailed record of six of the twenty-two unselected cases of auricular fibrillation in which they have used quinidin. Quinidin checks auricular fibrillation in about 50 per cent of the cases. The clinical value of the drug, properly administered, is demonstrated in the authors' series of twenty-two cases of auricular fibrillation. Nine of these showed a response by the restoration of normal rhythm, and two others by a change to either pure or impure flutter. Its effect is significant in the induction of the oscillatory rate of flutter.

Trigeminal Neuralgia

S. L. Silverman, Atlanta, Ga., (Journal A. M. A., Dec. 3, 1921), has discovered that affection of the buccal branch of the inferior maxillary division, which is very often involved, is scarcely ever diagnosed, and different from the supra-orbital, infra-orbital and mandibular branches; the "trigger zone" is vague and may sometimes give the impression that the neighboring nerves are the affected ones. For want of better language Silverman has named this phenomenon a "mirrored trigger zone." When the buccal nerve is affected, the patients may complain of the auriculotemporal, the infra-orbital or the mandibular region. Silverman suggests a blocking of the elusive buccal branch in the patient with recurring neuralgia. Since the buccal nerve is affected in nearly all cases that have gone for a year or more, either it should be injected at the tip of the inner surface of the coronoid process, or it can be blocked a centimeter below and behind the mouth of Stenson's duct. Both points are reached intra-orally. Silverman has devised an extra-oral method which is easier for the average surgeon to master. Patients have been entirely relieved in every instance in a series of fourteen cases.

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Hypophysis—Cure of Dystrophia Adiposo-Genitalis on Basis of Hereditary Lues

By Nonne, Max (Deutsche med. Wchnshr. Vol. 44.)

A report of a case of adiposo-genitalis showing adiposity, infantile genitals, absence of secondary sexual characters, polyuria and infantile psyche. The patient gave three plus Wassermann reaction. The mother and three of her sisters also gave positive Wassermann reactions and demonstrated signs of hypophyseal disturbances.—Endocrinology, July, 1921 (Meninge.)

From a study of the evidence offered by those who advocate the roentgen-ray treatment of hyperthyroidism and a consideration of his own experience, George W. Crile, Cleveland (Journal A. M. A., Oct. 22, 1921), is inclined to believe that the surgical treatment of hyperthyroidism combined with physiologic rest yields the most favorable results. Heretofore, the only valid objection to surgical treatment has been the mortality; but now surgical treatment is undertaken in every case; the mortality is practically eliminated; much time is saved, and a more certain cure is achieved.

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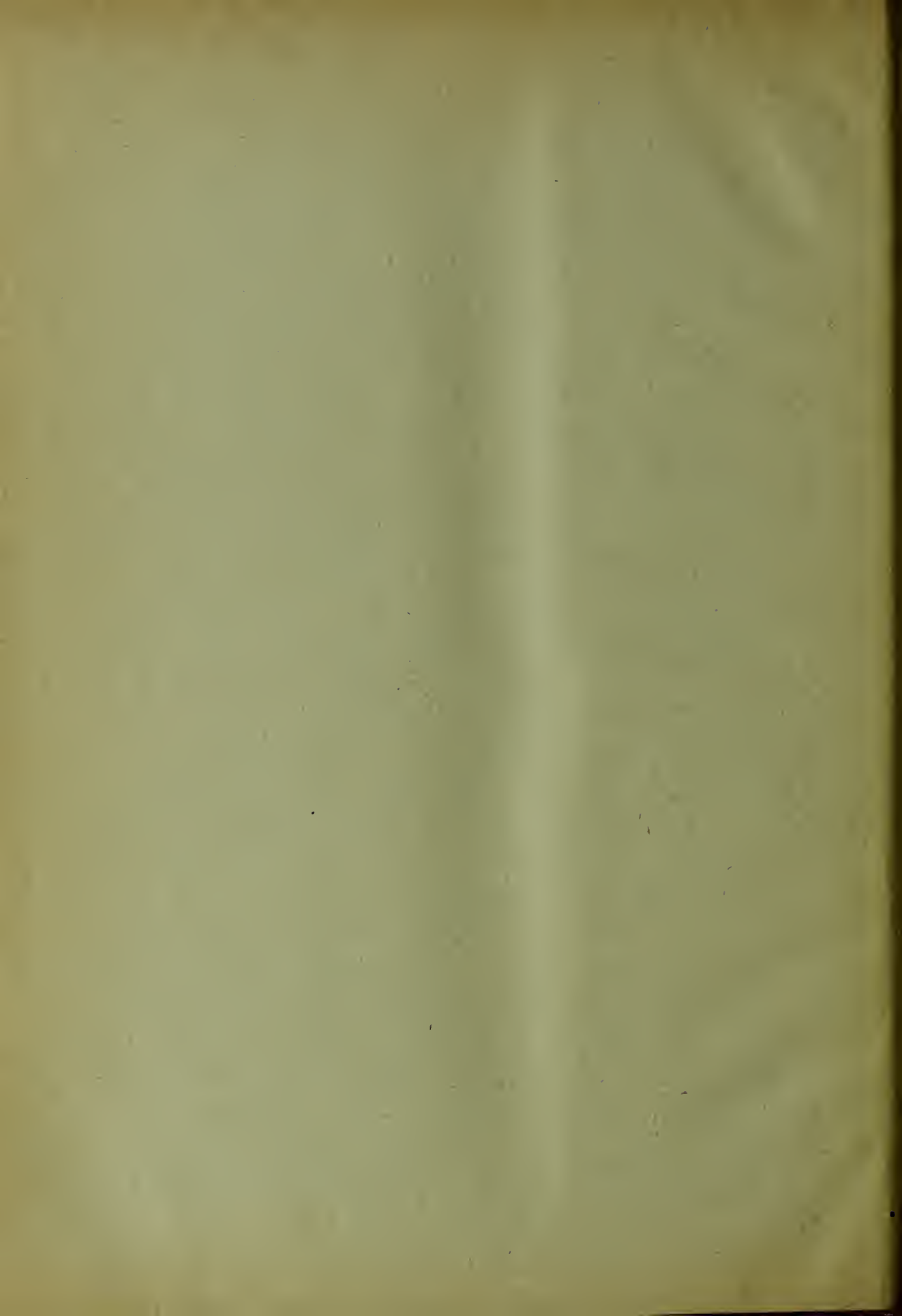
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